John S. Iiames, Jr., Research Biologist, in EPA's National Exposure Research Laboratory

Exposure Methods and Measurements Division
[Mailing Address](#)

iiames.john@epa.gov

Area of Expertise: As a research biologist with the National Exposure Research Laboratory I have specialized in geospatial research with an emphasis on environmental remote sensing. Since 1998, my research has focused on the geospatial analysis of the air-water-land interface at multiple scales (temporal and spatial) for the investigation of environmental indicators linked to environmental condition and human health. I have assessed land cover and vegetative biomass using multiple remotely sensed data types including multi-spectral optical data, lidar, and radar. This expertise, in conjunction with accuracy assessment and error analysis, has provided the modeling community with inputs required to support key integrated, multidisciplinary exposure science research.

Select Publications:

Shao, Y., Lunetta, R.S., Wheeler, B., Iiames, J.S., and Campbell, J.B., 2016. An evaluation of time-series smoothing algorithms for land-cover classifications using MODIS-NDVI multi-temporal data. Remote Sensing of Environment, 174:258-265.

Iiames, J.S., Riegel, J.B., and Lunetta, R.S., 2016. A comparison of two forested above ground biomass maps (2000) of the Commonwealth of Puerto Rico. Photogrammetric Engineering and Remote Sensing, In Review.

Iiames, J.S., Congalton, R.G., Lewis, T.E., and Pilant, A., 2015. Uncertainty Analysis in the Creation of a Fine-Resolution Leaf Area Index (LAI) Reference Map for Validation of Moderate Resolution LAI Products. Remote Sensing, 7:1397-1421 (DOI: 10.3390/rs70201397).

Marks, W., Iiames, J.S., Lunetta, R.S., Khorram, S., and Mace, T.H., 2014. Basal Area and Biomass Estimates of Loblolly Pine Stands using L-Band UAVSAR. Photogrammetric Engineering and Remote Sensing, 80(1):33-42.

Iiames, J.S. and Lunetta, R., 2013. Classification and Accuracy Assessment for Coarse Resolution Mapping within the Great Lakes Basin, USA. Photogrammetric Engineering and Remote Sensing, 79(11):1015-1026.

Iiames, J.S., Congalton, R.G., and Lunetta, R.S., 2013. Analyst variation associated with landcover image classification of Landsat ETM+ data for the assessment of coarse spatial resolution regional/global landcover products. GIScience and Remote Sensing, DOI: 10.1080/15481603.2013.865399.

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Education:

- B.S., Forestry, Virginia Tech (1984)
- M.S., Forestry (GIS/Remote Sensing), North Carolina State University (1999)
- Ph.D., Natural Resources (GIS/Remote Sensing), University of New Hampshire (2006)

Professional Experience:

- Research Biologist, U.S. Environmental Protection Agency, Research Triangle Park, NC, 2000- Present
- Graduate Research Assistant, Center for Earth Observation, NCSU, Raleigh, NC, 1997-1999