**[Using Remote Sensing Tools to Calculate Biomass Consistently Across LTER Sites.](http://asm2012.lternet.edu/working-groups/using-remote-sensing-tools-calculate-biomass-consistently-across-lter-sites%22%20%5Co%20%22Using%20Remote%20Sensing%20Tools%20to%20Calculate%20Biomass%20Consistently%20Across%20LTER%20%20Sites.) Working Group Report.**

Attendees: (see attached list)

**Introductions:** The work group started by asking attendees to introduce themselves. Interests included: water, animal movement, steep slope mountain concerns with data, landcover, components of biomass, accuracy, grown water/soil water chemistry, soil carbon (crops), mapping shrub canopy, using terrestrial laser scanners for the understory, grass lands, phenology.

Talks by: Tom Spies (AND), John Schalles (GCE), and Kyle Cavanaugh (SBC) are available on-line at the workshop website: <http://asm2012.lternet.edu/working-groups/using-remote-sensing-tools-calculate-biomass-consistently-across-lter-sites>

**Discussion:** Do we need some standardized data products? Ideas include biomass time series, LandSat corrected for atmosphere. hyperspectual data.

Standardized products: Atmosphere correction, Methodologies (resources for sites, LandTrendR (<http://landtrendr.forestry.oregonstate.edu>), land cover.

Products folks were interested in: NDVI, Land Cover (connect with MALS)

Resources: CLICK for LiDar data: (USGS <http://lidar.cr.usgs.gov/>), Earth Explorer (<http://earthexplorer.usgs.gov/>) , Opentopography.org (<http://opentopography.org/>) for high resolution topography data and tools, existing site resources (check on LTER site data pages).

Need to develop best practices for visualizations, (units, colors. Symbols, etc) (this could be through the IM GIS Working group) and tools for short vegetation (biomass)

**Breakout Groups:** (forests, marsh/prairies, water, disturbance)

Forests:

* LiDAR standard toolbox, share and look at forest industry, standard sampling methods, terrestrial LiDAR:
* Task: Create a clearinghouse/wiki with information about uses, LiDAR analysis, sampling methods, newer LiDAR applications. Lead volunteers: Paul Bolstad and Fox Peterson

Prairies/Marches

* Drivers/commonalities
* Use the thermal Band (yes on available on landsat scenes)
* Subgroups: but also connected: looking for some uniformity of processes.
	+ Coastal
	+ Continental grasslands
* Leads for follow up: John Schalles, Doug Goodin (will contact Tony Joern), Mike Friggens

Disturbance

* Types of disturbance, types of biomass, long term changes, recovery changes, water balance, and ecosystem services. Looking at general changes: Kyle/David

Water

* Water group did not meet (only one person with interest).

Follow-up: Theresa to follow up with leaders to see if they are interested in Post-ASM Working Group proposals or Post-Doc to work on next steps.