

Theme: Advances of Ecological Remote Sensing under Global Change

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Call for Papers: In 21st century, many factors conspire against the balance of ecosystems on earth, including climate change, population growth, and economic development. First, fast urbanization during the last few decades has altered the hydrologic cycle and related watershed processes that affect water resources and ecosystem dynamics in urban region. This urbanization combined with economic growth and improving living standards in cities led to an addition to the quantity and complexity of generated wastewater effluents and stormwater runoff, which interrupt the hydrologic cycle and endanger the structure, function, and services provided by aquatic ecosystems. Ecological dynamics is also clearly influenced by the climate with four seasons demarcated under the influence of monsoon, droughts, hurricanes, and floods. Besides, during the last one hundred years the temperature has arisen by nearly 0.6 degree C, and it is expected to rise by 2 degree C during the next 100 years. This would translate into the intensification of hydrologic cycle in terms of quantity and quality of water, changing balance in ecosystems, migration of species, changes in the way plants grow, trees reacting to downpours, drying up of biomass during droughts, and quicker growing and then wilting of crops. Recent advances in remote sensing provide us with a reliable and lucid means to explore the evolution of ecosystems in response to the global change via a temporally and spatially sensitive approach. This special section is designed to address the advancement in the field of ecological remote sensing under global change to help improve our understanding of the sensitivity of key factors in ecosystem balance and evolution.

Topics: Papers are solicited in, but not limited to, the following areas:

- Applications of ground-based, space- and air-borne hyperspectral, and multispectral remote sensing data for ecosystem sensing and monitoring
- Harmful Algal Bloom (HAB) sensing and monitoring in coastal and terrestrial water systems
- Multitemporal land use and land cover changes coupled with ecosystem conservation
- Crop production and precision farming under climate change impact
- Seawater color and primary productivity monitoring using remote sensing
- Coral reef monitoring and conservation
- Photosynthesis, evapotranspiration, and CO₂ sequestration in ecosystem
- Carbon cycle related to lakes and reservoirs
- Using hyperspectral remote sensing to track down invasive species migration

- Extreme weather events and ecosystem management
- Special algorithms in dealing with mixed pixels or subpixels information retrieval related to ecosystem monitoring

Submission: Manuscript submission deadline is Jan. 1st, 2010. Authors who are interested in contributing to the Special Issue should contact Prof. Ni-Bin Chang before Nov. 1st, 2009 via email above. Then authors may submit their papers via Elsevier's on-line submission system <http://www.ees.elsevier.com/ecoinf>. Please select Article Type "**Ecological Remote Sensing**". A "cover letter" indicating that the submission is intended for this special issue of Ecological Informatics should be included along with the paper.

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