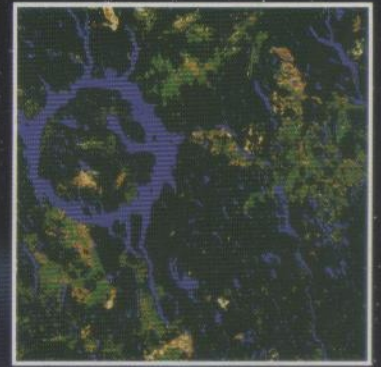


2005



2010



2005



2010



2005



2010

## North American Land Cover Change 2005-2010

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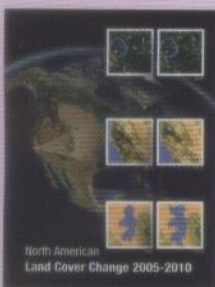
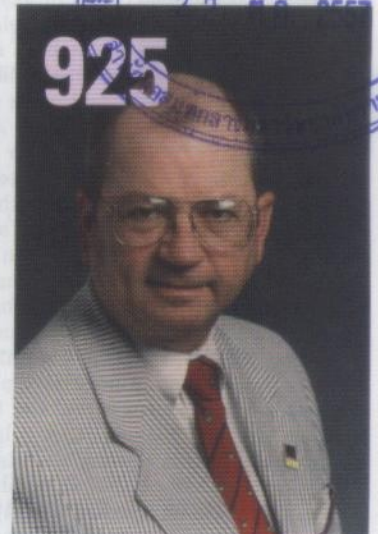
### HIGHLIGHT ARTICLE

#### 918 Detection of North American Land Cover Change Between 2005 and 2010 with 250m MODIS Data

*René R Colditz, Darren Pouliot, Ricardo M. Llamas, Collin Homer, Rasim Latifovic, Rainer A. Ressl, Carmen Meneses Tovar, Arturo Victoria Hernández, and Karen Richardson*

### PROFESSIONAL INSIGHT

#### 925 An Interview with Clifford J. Mugnier



This month’s cover image shows the land cover change of North America between the years 2005 and 2010 as mapped with 19 classes by the North American Land Change Monitoring System (NALCMS). The background shows the land cover map of 2010 draped over the globe, centered at 10°N and

100°W, and complemented with imagery of different sources for areas not mapped by NALCMS. The close-ups indicate changes between the years 2005 and 2010 for Lake Manicouagan in Quebec, Canada (top) with different stages of vegetation succession, forest loss due to a large fire in the Big Sur area in California, USA (middle), and different mean annual water levels of the Vicente Guerrero reservoir in Tamaulipas, Mexico (bottom).

For more information on the NALCMS project including the legend, see the highlight article in this issue. All land cover maps and change products can be downloaded for the entire continent from <http://www.cec.org> and for individual countries from institutional websites, e.g. United States: <http://landcover.usgs.gov> and Mexico <http://www.conabio.gob.mx/informacion/gis/>. Data assimilation: René R. Colditz ([rene.colditz@conabio.gob.mx](mailto:rene.colditz@conabio.gob.mx)); design: Bernardo Terroba ([bernardo.terroba@conabio.gob.mx](mailto:bernardo.terroba@conabio.gob.mx)). We kindly acknowledge the Commission for Environmental Cooperation (CEC) for covering all costs.

### PEER-REVIEWED ARTICLES

#### 939 A Semiautomatic Extraction of Antarctic Lake Features Using Worldview-2 Imagery

*Shridhar D. Jawak and Alvarinho J. Luis*

The design and implementation of a novel semiautomatic method to extract lake features in cryospheric environments from remotely-sensed images.

#### 953 Integration of Lidar and Landsat to Estimate Forest Canopy Cover in Coastal British Columbia

*Oumer S. Ahmed, Steven E. Franklin, and Michael A. Wulder*

The potential of Landsat imagery to accurately estimate forest canopy cover measured from small-footprint airborne lidar data was examined in order to expand the lidar measurements to a larger area.

#### 963 Object-Based Hyperspectral Classification of Urban Areas by Using Marker-Based Hierarchical Segmentation

*Davood Akbari, Abdolreza Safari, and Saeid Homayouni*

A novel framework based on marker-based hierarchical segmentation for object-based classification of hyperspectral imagery using both spectral and spatial information.

#### 971 Automatic Smoke Detection in MODIS Satellite Data Based on K-means Clustering and Fisher Linear Discrimination

*Xiaolian Li, Jing Wang, Weiguo Song, Jian Ma, Luciano Telesca, and Yongming Zhang*

An automatic smoke detection algorithm by integrating K-means Clustering and Fisher Linear Discrimination in MODIS data.

#### 983 Examining Change Detection Approaches for Tropical Mangrove Monitoring

*Soe W. Myint, Janet Franklin, Michaela Buenemann, and Won K. Kim*

Using Landsat imagery acquired over select sites in three tropical countries (Bangladesh, Burma, and Thailand), this study employed different change detection approaches and composite bands to determine the most effective approach to monitor changes in mangrove forests.

**APPLICATIONS PAPER**