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## **Monitoring Forests from Space: Hyperspectral and Kyoto Products**

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Remote-sensing data can be used to create products to support national and international agreements on sustainable forest management and the Kyoto Protocol. Examples of products derived from satellite hyperspectral data and from multitemporal Landsat data are presented in this paper. Multitemporal Landsat data from 1985, 1990, 1996 and 2001 were orthorectified and used to create forest classifications and biomass estimates. The multitemporal products were used to create above-ground carbon maps, and reforestation, afforestation and deforestation maps. The above-ground carbon measurements were compared with those derived from a traditional forest inventory for our test site near Hinton, Alberta, Canada. The remote-sensing methods reported twice as much forest area, and half the biomass, as derived from the forest inventory. The total above-ground carbon results for the Hinton test site from the two methods were in general agreement.

With EO-1 Hyperion data of the Greater Victoria Watershed (on southern Vancouver Island, in British Columbia, Canada), forest species were classified to an accuracy of 90.0% correct. The Hyperion data were orthorectified to a positional accuracy of 10.1 m. Hyperspectral monitoring of forests can be used for forest inventory, forest health and forest chemistry.

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## **Nueva metodología para el análisis fitosociológico**

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En bosques de galería del bioma de las sabanas localizados en la región central del Brasil fueron realizados levantamientos fitosociológicos, a través de transectos de muestreo de 10m de ancho. Los transectos quedaron distribuidos perpendiculares al curso del río. Para el análisis de los parámetros fitosociológicos de abundancia, dominancia y frecuencia relativas y absolutas, índice del valor de importancia e importancia relativa, se confeccionó el método de los valores relativos fragmentados.

Los estudios fitosociológicos concluyen con la determinación del índice del valor de importancia. El método de los valores relativos fragmentados además de presentar los tradicionales parámetros fitosociológicos permite calcular el error de muestreo, la precisión estadística y la intensidad de muestreo de los inventarios forestales. La metodología clásica identifica a través del índice del