Land Use and Land Cover in Environmental Monitoring Programme in Estonia

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Snow cover causes a significant radiometric contrast between bright open areas and dark forests in the visible and near infrared spectral region.

Landsat TM band 3 image
25 km by 25 km on ground

Frequency distribution of pixel brightness values


Landsat TM 3, 18. March 1987
Reflectance pattern depends on cardinal direction, but also on the age of forest edge, forest composition & tree height.
Forest map of Estonia compiled from Landsat TM images
Afforestation of formerly non-forested land between 1987 and 2005
Reed belt at Lake Võrtsjärv, August 2007.
Orthophoto, 03.07.2005

Landsat TM 09.08.2007, NDVI color code
Determining the threshold in coastal vegetation mapping

[Graph showing NDVI values for water or lake bottom and coastal vegetation, with pixel zones and no. of observations.]
Coastal vegetation 1986
1120 ha

Coastal vegetation 2007
1460 ha