Geophysical Research Abstracts
Vol. 13, EGU2011-5870, 2011
EGU General Assembly 2011


# Geological Mapping via Remote Sensing in the Chew Bahir Rift, Southern Ethiopia

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Remote Sensing is an attractive method for geological mapping, especially for hardly accessible terrains on earth. One of those, the Chew Bahir Basin in southern Ethiopia, is here to be mapped. This poster points out three methods to discriminate bedrocks and to determine the mineral content of the uppermost layer by using multispectral data of the Landsat 7 Satellite. The methods are false color composite, ratio and supervised classification. Supervised classification uses the maximum likelihood method to sort each pixel. The classification requires training data, which is usually provided by field measurements. In this case a geological map of the Ethiopian government (1979) is used to define the regions of interest (ROI), which are defined as training data. The result of this work is a geological map, which is based on spectral information. Particularly, it worked well on determining the mineral content of alluvial fans and dried up lakes. Finally, it can be said, that remote sensing avails geological mapping without replacing fieldwork.