

Variation in the Mangrove Forest Area in Southern Iran Between 1998 to 2007 using Satellite Data

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In many parts of the world, mangrove forests are declining at an alarming rate-possibly even more rapidly than inland tropical forests. The main objective of the present study was to monitor and compare the area of mangrove forests in northern coasts of the Persian Gulf in southern Iran (Qeshm Island) during 1998-2007 period. The multi-temporal satellite digital data of the Thematic Mapper (TM) for 1998 and Indian Remote Sensing (IRS) data for 2007 were analyzed. With the application of map to image method for geometric correction, the root mean square (RMS) error reduced to less than 0.5 pixel. After visual interpretation, the training samples were chosen using field study data and auxiliary information. The images were then classified by using supervised method and maximum likelihood algorithm. The results have shown that, from 1998 to 2007, the area of mangrove forests has reduced by about 886 hectares mostly located in northern and northwestern parts of the Island. The forest area has not considerably changed on the southern regions of the Island.

Keywords: Iran, Mangrove forests, Qeshm Island, remote sensing