

基于高分四号卫星数据的藻华监测研究

高分四号卫星是我国首颗民用高分辨率静止轨道卫星,于2015年12月发射升空。高分四号(GF-4)具有高时间分辨率(20秒)和高空间分辨率(50米)的独特优势,具有极强的监测能力。为了挖掘GF-4卫星在海洋藻华监测中的应用潜力,本文以渤海赤潮和黄海绿潮为例,开展了基于GF-4卫星影像的赤潮和绿潮漂移速度探测研究。结果表明:GF-4卫星影像所具有的高空间分辨率优势在小规模赤潮探测方面具有明显的优势;GF-4卫星影像所具有的高时间分辨率优势可有效探测绿潮的漂移速度。上述工作的开展,可促进GF-4卫星影像在海洋藻华监测的应用,为海洋藻华防治提供技术支撑。

Bloom monitoring based on GF-4 satellite images

The GaoFen-4 (GF-4) remote sensing satellite is China's first civilian high-resolution geostationary optical satellite, which has been launched at the end of December 2015. The GF-4 has the unique advantages of high temporal resolution (20s) and high spatial resolution (50m). In order to explore GF-4's potential in ocean bloom monitoring, the GF-4 images were used in red tide detection in the Bohai Sea and drifting velocity of the green tide in the Yellow Sea. Results showed that the GF-4 images had great potential in small patches of red tide detection and could provide data support for accurate monitoring of green tide short-term movement.

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作者简介: 陈晓英(1980—), 女, 山东省青岛市人, 助理研究员, 主要从事海洋光学遥感研究。E-mail: cxy@fio.org.cn

*通信作者: 崔廷伟(1979—), 男, 研究员, 主要从事海洋光学与水色遥感研究。E-mail: cuitingwei@fio.org.cn