

Use of SeaWiFS and AVHRR for Detecting Plankton Blooms

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Abstract

Since 1992, a local receiver for NOAA weather satellite (AVHRR) images has been used at IOS, Sidney, BC to map the sporadic bright patches in western North American (Canadian and adjacent US) coastal waters, which indicate the occurrence of intense plankton blooms. These events represent high concentrations of bloom organisms over wide areas, but have gone largely unobserved and unreported before the start of this program. A test of the software developed for this work using imagery collected in Korea and Taiwan, detected a similar event in the Yellow Sea in the fall of 1996. In September 1997, data from Seawifs became available, and are also being received at the IOS station. This imagery shows the existence of blooms over a wider range of seasons and in the central Gulf of Alaska. Nature of events is being confirmed by water samples and in-water observations.