

EVALUATION OF A METHOD FOR DETECTING *Karenia brevis* BLOOMS IN THE EASTERN GULF OF MEXICO WITH SATELLITE OCEAN COLOR IMAGERY

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Starting in October 2000, the Center for Coastal Monitoring and Assessment (CCMA) of NOAA has used SeaWiFS imagery and NOAA's environmental buoys to locate blooms of the toxic dinoflagellate, *Karenia brevis*, in south Florida, USA. Anomalously high chlorophyll is used for detection, where the anomaly is defined as the difference between real time and two-month running mean SeaWiFS imagery. With the availability of SeaWiFS imagery from NOAA's Coastwatch Program, in which a regional chlorophyll algorithm for the Gulf of Mexico has been applied, and extensive field measurements of *K. brevis* abundance from the Florida Marine Research Institute, Mote Marine Laboratory and the ECOHAB program, it is now possible to analyze the effectiveness of this algorithm. The evaluation addresses the following: (1) Does the algorithm accurately identify the presence, absence and/or bloom duration off the west coast of Florida? (2) Does the algorithm perform better in particular regions of the eastern Gulf of Mexico? (3) Is the predictive capability more accurate during particular times of the year? The overall purpose of this study is to evaluate the usefulness of the algorithm to monitor *K. brevis* blooms in the eastern Gulf of Mexico and to modify it, where appropriate, to provide more accurate detection.