

Seasonal distribution of Harmful Algal Bloom species in East Coast of Sabah, Malaysia

Abstract

In the east coast of Sabah, no Harmful Algal Bloom (HAB) case has been reported although *Pyrodinium bahamense* var. *compressum* had been reported a decade ago. Therefore, this study was performed to evaluate the current situation of HAB in the east coast of Sabah. Samples were collected during northeast monsoon and southwest monsoon at 3 sites (St. 1, St. 2 and St. 3). Physical and chemical parameters such as nutrients (phosphate and nitrate), salinity, pH, temperature and dissolved oxygen were measured. Rainfall data were obtained from Meteorological Department, Sabah. Eight potential HAB species were identified. *Ceratium furca* dominated the area during both monsoons. Monsoons did not significantly affect the occurrence of HAB species. Based on location, St. 3 has high cell density of HAB and high nutrient concentration. Aquaculture activity and river effluents near St. 3 were believed to contribute to this high nutrient concentration. The presence of potential HAB species indicates that the east coast of Sabah may experience HAB problem in the future if factors triggering the bloom are not managed well.