Key Species of Phytoplankton in Eastern Part of Segara Anakan Indonesia Based on Season

Publons ID	48161315
Wos ID	WOS:000637770900013
Doi	10.12911/22998993/132606
Title	Key Species of Phytoplankton in Eastern Part of Segara Anakan Indonesia Based on Season
First Author	
Last Author	
Authors	Piranti, AS; Setyaningrum, N; Widyartini, DS; Ardli, ER;
Publish Date	MAR 2021
Journal Name	JOURNAL OF ECOLOGICAL ENGINEERING
Citation	
Abstract	Phytoplankton blooms are a problem that often occurs in estuarine and coastal ecosystems. The changes in phytoplankton community species composition, diversity, biomass, and distribution were caused by the conditions of seasonal and temporal variation. The immediate location of the estuary ecosystem is near cities, where rapid economic growth and human activity tends to increase the pressure on the environment. The purposes of this research were to evaluate the seasonal and temporal variation and to determine the key species of phytoplankton in the eastern part of Segara Anakan which can cause a bloom based on season. The samples of phytoplankton were taken from 6 sites during April - September 2019 when the highest tide occurred during the dry and rainy seasons. The community structure were performed using primer software Ver 5 to find the similarity and / or differences of the phytoplankton community structure based on season. Simper analysis was used to determine key species (phytoplankton species) based on season and location. The community structure of phytoplankton in Segara chicks were composed by 5 divisions. During the dry season, Bacillariophyta was dominant (82%), whereas during the rainy season, Bacillariophyta (43%) and Chlorophyta (31%) and Cyanophyta (25%) were the dominant species. This study shows that the phytoplankton community structure in this estuary presents the environment conditions during the rainy season that increase the abundance of phytoplankton, especially of the species which may thrive into blooms. The most important species was Oscillatoria limosa that had the highest percentage of contribution.
Publish Type	Journal
Publish Year	2021
Page Begin	135
Page End	142
Issn	2299-8993
Eissn	
Url	https://www.webofscience.com/wos/woscc/full-record/WOS:000637770900013
Author	Dr.rer.nat. ERWIN RIYANTO ARDLI, M.Sc.