

ABSTRAK

Laguna Segara Anakan memiliki aktivitas antropogenik tinggi akibat buangan limbah pelabuhan dan industri, sehingga memengaruhi biota yang hidup di dalamnya seperti *oyster*. *Oyster* memiliki kandungan nutrisi tinggi, salah satunya karbohidrat. Faktor fisika-kimia perairan dapat memengaruhi kandungan karbohidrat pada *oyster*. Tujuan penelitian ini untuk menganalisis kandungan karbohidrat dan parameter fisika-kimia perairan, serta menganalisis hubungan faktor fisika-kimia terhadap kandungan karbohidrat *oyster Crassostrea sp.* Metode penelitian yang digunakan adalah metode survei dan dilakukan di 3 stasiun penelitian. Penentuan karbohidrat total dianalisis menggunakan metode *by difference* dan glukosa menggunakan metode *Luff-schoorl*. Hasil penelitian menunjukkan bahwa kandungan karbohidrat total dan glukosa *oyster Crassostrea sp.*, berkisar antara 15,8350 – 18,3033% dan 1,71 – 2,85%. Parameter fisika-kimia perairan seperti suhu, salinitas, kecerahan, kedalaman, pH, DO, dan BOD berada pada kisaran baku mutu optimal. Kandungan karbohidrat total memiliki nilai korelasi sangat kuat ($r = 0,928$) dengan kedalaman; suhu dan DO sedang ($r = -0,541$); salinitas sedang ($r = 0,541$); kecerahan lemah ($r = 0,390$); BOD sangat lemah ($r = -0,191$); pH sangat lemah ($r = 0,087$). Kandungan glukosa memiliki nilai korelasi sangat kuat ($r = -0,866$) dengan suhu dan DO; salinitas kuat ($r = 0,866$); kecerahan kuat ($r = 0,768$); kedalaman sedang ($r = -0,655$); BOD sedang ($r = -0,619$); pH lemah ($r = -0,378$).

Kata kunci : *Crassostrea sp.*; karbohidrat; Laguna Segara Anakan; parameter fisika-kimia perairan.

ABSTRACT

Segara Anakan Lagoon has high anthropogenic activity due to port and industrial waste discharge, thus affecting the biota living in it such as oysters. Oysters have high nutrient content, one of which is carbohydrates. Physicochemical factors of waters can affect the carbohydrate content of oysters. The purpose of this study was to analyze the carbohydrate content and physicochemical parameters of waters, as well as to analyze the relationship of physicochemical factors to the carbohydrate content of Crassostrea sp. oysters. The research method used was the survey method and was conducted at 3 research stations. Determination of total carbohydrates was analyzed using the by difference method and glucose using the Luff-schoorl method. The results showed that the total carbohydrate and glucose content of Crassostrea sp. oysters ranged from 15.8350 - 18.3033% and 1.71 - 2.85%. Physicochemical parameters of waters such as temperature, salinity, brightness, depth, pH, DO, and BOD were within the optimal quality standard range. Total carbohydrate content had a very strong correlation value ($r = 0.928$) with depth; moderate temperature and DO ($r = -0.541$); medium salinity ($r = 0.541$); weak brightness ($r = 0.390$); very weak BOD ($r = -0.191$); very weak pH ($r = 0.087$). Glucose content has a very strong correlation value ($r = -0.866$) with temperature and DO; strong salinity ($r = 0.866$); strong brightness ($r = 0.768$); medium depth ($r = -0.655$); medium BOD ($r = -0.619$); weak pH ($r = -0.378$).

Keywords : carbohydrate; Crassostrea sp.; physical and chemical parameters; Segara Anakan Lagoon.

