ABSTRAK

Tumpahan minyak mentah (*crude oil*) berpotensi sebagai bahan pencemar yang dapat memberikan dampak bagi ekosistem terumbu karang terutama biota yang hidup di ekosistem tersebut salah satunya ikan giru. Minyak mentah dapat masuk kedalam tubuh organisme melalui rantai makanan, insang atau difusi melalui permukaan kulit. Tujuan dari penelitian ini adalah untuk mengetahui pengaruh kontaminasi *crude oil* terhadap kondisi morfoanatomi dan kadar glukosa darah ikan giru (*A.clarkii*) serta mengetahui hubungan kontaminasi crude oil terhadap kadar glukosa darah ikan giru (*A.clarkii*). Penelitian ini dilakukan menggunakan metode eksperimental dengan sistem rangkaian acak lengkap (RAL) yang meliputi 4 perlakuan dan 3 ulangan, kemudian kondisi morfoanatomi dianalisis secara desktiptif dan kadar glukosa darah analisis menggunakan Anova dan regresi linier sederhana. Hasil penelitian menunjukan kondisi morfoanatomi ikan giru (*A.clarkii*) mengalami beberapa perubahan baik itu warna tubuh, insang, viscera dan geripis pada bagian ekor untuk konsentrasi *crude oil* yang berbeda. Hasil analisis Anova terkait pengaruh kontaminasi *crude oil* terhadap kadar glukosa darah ikan giru (*A.clarkii*) menunjukkan tidak adanya perbedaan yang signifikan, akan tetapi memperlihatkan peningkatan kadar glukosa darah pada konsentrasi *crude oil* berbeda. Berdasarkan hasil analisis regresi linier sederhana, hubungan perbedaan konsentrasi *crude oil* dengan kadar glukosa darah ikan giru (*A.clarkii*) menunjukkan arah yang positif dan masuk kategori sangat kuat.

Kata Kunci: *A.clarkii*, Kadar Glukosa Darah, Minyak Mentah, Morfoanatomi

ABSTRACT

Crude oil spills have the potential to be pollutants that can have an impact on coral reef ecosystems, especially biota that live in these ecosystems, one of which is giru. Crude oil can enter the body of organisms through food chains, gills or diffusion through the surface of the skin. The purpose of this study is to determine the effect of crude oil contamination on the morphoanatomical condition and blood glucose levels of giru fish (A. clarkii) and to determine the relationship between crude oil contamination and blood glucose levels of giru fish (A. clarkii). This study was conducted using an experimental method with a complete random sequence system (RAL) which included 4 treatments and 3 replicates, then morphoanatomical conditions were analyzed detentively and blood glucose levels were analyzed using Anova and simple linear regression. The results of the study showed that the morphoanatomical condition of the giru fish (A. clarkii) underwent several changes, both body color, gills, viscera and thinning on the tail for different concentrations of crude oil. The results of Anova's analysis related to the effect of crude oil contamination on the blood glucose levels of giro fish (A. clarkii) showed no significant difference, but showed an increase in blood glucose levels at different crude oil concentrations. Based on the results of a simple linear regression analysis, the relationship between the difference in crude oil concentration and the blood glucose level of giru fish (A. clarkii) shows a positive direction and is categorized as very strong.

Key words: *A.clarkii, Blood Glucose Levels, Crude Oil, Morphoanatomy*