

Heart rate responses of the European Green crab, *Carcinus maenas* exposed to Ultra Low Sulfur Diesel

Oil contamination happens constantly around the world and little is known about how certain oils affect the physiology of organisms in marine ecosystems. Heart rate is often used as a measure of physiological health and or stress and *Carcinus maenas* is an often studied crab species for physiological assessment. To measure the heart rate of *Carcinus maenas*, wires were implanted around each individual's heart lobe and the electrocardiogram (ECG) data was recorded on the computer. The crabs were exposed to five treatments, Water, Air, Water2, DieselWater and DieselAir for 30 min each. Average heart rate of the crabs did show a significant increase when exposed to Air and DieselAir but could not definitively show a significant change in heart rate based solely on the Ultra Low Sulfur Diesel exposure. These results may be caused by the limited adaptability a littoral zone species has to aerial exposures.

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