

Differences in heavy metal concentrations of green crabs, *Carcinus maenas*, between two locations in Maine

Heavy metals are released into the environment from many different sources. While there are traces of heavy metals everywhere, some areas, due to anthropogenic activities (eg. industry and farming), atmospheric changes (e.g. global warming and erosion), or land use (e.g. mining and recreation), have higher concentrations of these metals than others, and thus, may increase biological uptake and fatality among marine organisms. When these heavy metals reach an organism's maximum tolerance level, there can be multiple effects, some of these include; molting difficulties for invertebrates that are able, oxidative stress, and death. . There was a significant difference ($t = -7.03$, $p < 0.001$) in zinc concentration between crabs located in Goose Cove and those in Castine. There were no detectable cadmium rates which could be due to cadmium only being a by-product of zinc and copper mines.