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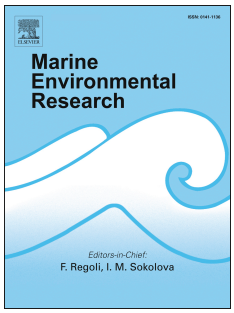

Effects of concentration and size of suspended particles on the ingestion, reproduction and mortality rates of the copepod, *Acartia tonsa*

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Effects of concentration and size of suspended particles on the ingestion, reproduction and mortality rates of the copepod, *Acartia tonsa*

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Abstract

Suspended sediments are a common occurrence in the marine environment. They can be generated by natural causes, including waves and currents, or brought about by anthropogenic activities such as reclamation and dredging. High sediment concentrations are known to have negative consequences on copepods; however, the impact of sediment size has largely been overlooked. Here we examine the effects of sediment size and concentration in combination with varying algae concentrations on the ingestion rate, egg production, hatching success and survivorship of the copepod species, *Acartia tonsa*. High concentration of small sediments at low food availability had the greatest negative impact on all parameters except hatching success. Greater food concentration was able to mitigate some of these effects. High concentrations of large sediments also reduced egg production rates, possibly due to *A*.