

Effect of Location Transfer on the Purification of the Carpet Shell Clam, *Ruditapes decussatus* in Southern Tunisia

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Keywords: Clam, *Ruditapes decussatus*, Purification, Phytoplankton, Condition Index. Southern Tunisia.

1 ABSTRACT

The aim of the present study was to evaluate possible purification of the carpet shell clam *Ruditapes decussatus* of toxic dinoflagellates, by the transfer from areas of high toxic algae concentrations to coastal areas with low toxic algae concentrations. The experiment concerns contaminated clams from Boughrara lagoon (high contamination) transplanted to the estuarine area of Oued Maltine (low contamination) in southern Tunisia. A positive relationship was observed between abiotic (physico-chemical), trophic (chlorophyll *a* and phytoplanktonic biomass) and physiological parameters (condition index and mortality rate). Condition Index showed Boughrara clams transported to Oued Maltine acclimatized well. Mortality rate very low <1% from November 2011 until April 2012, but increased to 85% (of 45 kg (45000 individuals) at the end of June 2012, when temperatures were highest. Toxicity test by qualitative method showed that transplanted clams were not toxic to mice five months after transplantation to Oued Maltine. Then this experiment shows the possibility of purification of the carpet shell clam *Ruditapes decussatus* of toxic dinoflagellates, by the transfer from areas of high toxic algae concentrations to coastal areas with low toxic algae concentrations. This solution is necessary for the protection of the species and the preservation of the natural stock.
