

ABSTRACT

Ballast water is carried in unladen ships to ensure trim and structural integrity. It provides stability to the ship when traveling with light loads and discharging water when heavily laden with cargo. At the ships' destination, the cargo is loaded and the surviving organisms were pumped out together with the discharge of the ballast water. These species that were discharged were termed invasive since they adapt and propagate to a new environment and location. Most of these invasive species were merely zooplankton. Zooplankton are tiny floating or swimming animals found in the water in all estuaries. They graze on phytoplankton and rely on water currents for them to move a distance. They are very important in the marine ecosystem since they play a major role in the aquatic food chain. Physical and chemical factors such as temperature, salinity, pH, Dissolved Oxygen and the competition for the available resources may affect their distribution and abundance.

The ballast water sampling was done at North Harbor in Delpan, Manila. The samples were gathered from the ballast tank of three available ships with the use of meshnet using vertical towing. Physical and chemical properties were measured through the use of pH meter, DO meter, salinometer and thermometer.

Titration was done using a pipette. The use of SR-counting chamber and digicam with computer was done for the identification of zooplankton.

As a result, three species were found belonging to two phyla, two subphyla, two classes, three orders and three families. One of the species found was *Gonyaulax* sp. under phylum Phyrrrophyta, subphylum Dinozoa, Class Dinophyceae, Order Gonyaulax and Family Gonyaulaceae. Following *Euchaeta* sp. belonging to Phylum Arthropoda, Subphylum Crustacea, Class Copepoda, Order Calanoida and Family Euchaetidae. Lastly, *O. rigida* which belongs to the same phylum, subphylum and class of the specie *Euchaeta* sp. This specie is under Order Cyclopodia and Family Oithonae.

The Physico – Chemical properties of Ballast water obtained a value of a weak positive correlation, a modest correlation and a modest negative correlation to the abundance of zooplankton.