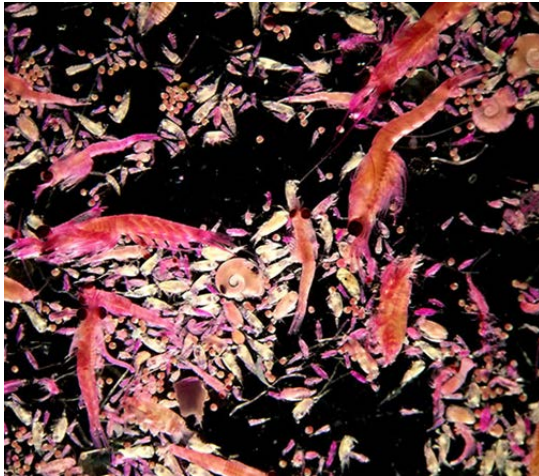


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**PhD project: Global-scale patterns of biodiversity and biomass of the neustonic zooplankton**

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**Summary:** Zooplankton plays a key role in the ecology of the marine realm, by mediating the transfer of energy between phytoplankton and higher trophic levels, and redistributing carbon and other nutrients in the ocean. Among zooplankton's community of organisms, in the thin layer of the atmosphere/ocean boundary, lays one of the less described and understood ecological groups of metazoans: the neuston. Composed of taxa belonging to the plankton this rich and diverse community is globally widespread and divided into three ecological categories which correspond to their behavior in the water column (euneuston; facultative neuston; and pseudoneuston). The diel vertical migrations of neuston involve the transfer of food and energy, directly impacting the amount and composition of vertical particle flux, which does not only act as an energy source for the benthic community but also constitutes an important mechanism to the removal of anthropogenic CO<sub>2</sub> from the atmosphere through sedimentation of organic and inorganic materials. However, surprisingly, given the apparent relevance of the biological processes that take place within the neuston and impact in the world's oceans ecology, to this day only a few geographically-limited studies have focused in the neuston. To help bridge this gap, the present study aims at exploring for the first time the neustonic community from a global scale perspective.