

PLANKTON ECOLOGY

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Área: Ciências Exatas

Linhas de Pesquisa: Biogeography of planktonic organisms; Chemistry of seawater, plankton and eutrophication; Cultivations and use of organisms from bioactive compounds potential; Development of study methods and instrumentation; Invasive planktonic species

Breve descrição das atividades de pesquisa

Taxonomic studies of marine plankton and spatial-temporal distribution, applied to environmental characterization and environmental impact with identifying changes in species diversity in port regions and biological responses to coastal eutrophication in Santa Catarina. Use of planktonic organisms in environmental toxicology tests and mariculture with the development of test protocols with cultivated species. Also, the potential attainment of bioactive substances applied to pharmacology is investigated for native species of jellyfish. Development of studies and methods for oceanographic research, including laboratory procedures and samplers such as the Oceanographic Towing Vehicle (OTV) associated with the Continuous Plankton Record (CPR). Evaluation of water quality indicators to support the assessment of planktonic communities. Evaluation of planktonic species of merchant vessels ballast water.

Impacto das pesquisas desenvolvidas para a sociedade e ciência

Development of a continuous plankton sampler applied to fishing vessels, optimizing the collection of plankton samples using ships of opportunity. Elaboration of predictive models of jellyfish stings in bathers in the summer season on the coast of Santa Catarina. Biochemical composition of microalgae and jellyfish for use as a food supplement and obtaining bioactive substances. Evaluation of the trophic state and problems associated with eutrophication on the coast of Santa Catarina and its repercussions on the food chain and fisheries. Potential invasive planktonic species from merchant vessels and the impact consequence the biodiversity south Brazilian marine ecosystems.