ORAL PRESENTATION

THALASSIOSIRA MINIMA AS ECOLOGICAL INDICATOR OF CHANGES IN SUMMER BLOOMS DYNAMICS

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Coastal and estuarine ecosystems emerge as important areas highly sensitive to human and climate change stressors. The growing need for the assessment of long term changes at the base of their pelagic food webs and predicting their rate of change represents a current challenge in ecological studies. In the Bahía Blanca Estuary, Argentina, the winter-early spring diatom bloom has been ascribed as the main feature of the phytoplankton dynamics for the period 1978-2002. In recent years 2005-2008, however, noticeable changes have been observed including an increase in the phytoplankton biomass in summer. Summer blooms have been dominated by the diatom *Thalassiosira minima* which, in 2008, reached up to 85 % of the total phytoplankton abundance. Although this species has been previously reported in the estuary since 1994 it was always observed in low densities, while flagellates were the dominant phytoplankton group in summer. The high biomass reached by *T. minima* in the recent years was related with high water turbidity, light extinction coefficients *k*, and water temperature. Our results suggest that the long term changes of *T. minima* integrate the modifications the Bahía Blanca Estuary has undergone in the last decade. The close link between *T. minima* and the environmental parameters that now characterize the Bahía Blanca Estuary allows suggesting that this species may be used as indicator of the estuarine ecosystem state.