

Temporal and spatial changes in primary biomass as a diagnosis and prognosis in environmental impact (Rapel Reservoir, Central Chile)

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Extensive mortality of silversides (Atherinidae), *Odontesthes bonariensis*, was recorded during July 1989 in the Rapel Reservoir. Temporal and spatial changes observed in biomass concentration (chlorophyll-a) through both ground and remote sensing samples (LANDSAT), allowed us to establish a potential environmental impact. Ground measurements established an input of sulfate (SO_4) in a eutrophic area. The mean concentration of biomass tended to decrease in this area in comparison with other mesotrophic areas. The local disfunction associated with the observed biomass changes has been used to develop a prediction in species composition and in biomass concentration. © 1994 Kluwer Academic Publishers.