

temperatura, condutividade elétrica, fósforo, ferro, alcali-  
nidade e demanda de oxigênio (DQO e DBO) são analisados em  
função da caracterização do sistema e das suas relações com  
as quantidades de clorofila a determinadas.

ABSTRACT - LIMNOLOGICAL ASPECTS OF THE SACO DE TAPES, LAGUNA  
DOS PATOS, BRAZIL

The limnological conditions in Saco de Tapes, a  
subsystem of Laguna dos Patos - Rio Grande do Sul - are de-  
termined largely by climatological and hydrological factors.

Among the climatological factors which are related to  
the limnological conditions, the velocity and direction of  
wind proved to be specially important. The wind mixes the  
water mass completely and causes turbulence so that the se-  
diments of the bottom are resuspended and the transparency  
is diminished. Furthermore, the wind favors the entrance of  
saline wedges that drastically changes the water quality.

Hydrological factors such as currents, dispersion and  
discharge determine the amplitude and time of permanence of  
this alteration.

The saline wedges increase the salt content as well  
as change the ionic balance. The ionic dominance relationship  
shows  $Na^+ > Mg^{2+} > Ca^{2+} > K^+$  and  $HCO_3^- > Cl^- > SO_4^{2-} > CO_3^{2-}$ . For  
the cations this relationship occurs throughout the year but  
for anions, in mixohaline condition,  $Cl^- > HCO_3^- > SO_4^{2-} > CO_3^{2-}$ .

The oxygen concentration is always greater than 70%  
of saturation, and hypersaturated samples are frequent. The  
pH is alkaline, 7.0-8.9. Other parameters such as temperatu-  
re, electrical conductivity, phosphorus, iron, alkalinity,  
oxygen demand (COD and BOD<sub>5</sub>) are analyzed based on the chlo-  
rophyll a concentration.

