

# Diurnal changes in zooplankton respiration rates and the phytoplankton activity in two Chilean lakes

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Respiration rates of natural zooplankton communities were measured for diel cycles in two lakes. Distinct diurnal cycles were observed in Embalse Rapel with high respiratory rates for the spring cladoceran dominated zooplankton at dawn and dusk. Very restricted diurnal variation was seen in the copepod dominated zooplankton of Lago Chungará. During the study period at Rapel the phytoplankton photosynthesis remained fairly constant at values an order of magnitude higher than in Chungará. Differences are considered in relation to migratory behaviour and energetic strategies of the zooplankton. © 1989 Kluwer Academic Publishers.