

Survivorship of *Cyclops abyssorum tatricus* (Cyclopoida, Copepoda) and *Boeckella gracilipes* (Calanoida, Copepoda) under ambient levels of solar UVB radiation in two high-mountain lakes

Tartarotti, Barbara

Cabrera, Sergio

Psenner, Roland

Sommaruga, Ruben

We performed in situ experiments during the summer of 1995 and 1996 to assess the potential effect of solar ultraviolet B (UVB) radiation (290-320 nm) on the survival of *Cyclops abyssorum tatricus* Kozminski and *Boeckella gracilipes* Daday. These species are numerically dominant within the crustacean zooplankton living in two high-mountain lakes, one located in the Austrian Alps [Gossenkollesee (GKS), 2417 m above sea level, maximum depth 9.9 m] and another in the Chilean Andes (Laguna Negra, 2700 m above sea level, maximum depth 320 m). The copepods were incubated in quartz tubes (11) or in quartz tubes wrapped with Mylar D® to exclude most of the UVB radiation. The organisms were exposed at 0.5 m depth for 10-72 h on cloudless days. Both lakes were very transparent to UVB and 10% of the surface radiation at the nominal wavelength of 305 nm was still present at 9.6 m in GKS and at 12.8 m in Laguna Negra. These species migrate vertically and have a maximum daytime distribution close to t