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CRUSTACEAN ZOOPLANKTON IN LAKES AND RESERVOIRS OF TEMPERATE AND TROPICAL REGIONS: VARIATION WITH TROPHIC STATUS.

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The influence of trophic status on the crustacean zooplankton community was investigated in lakes and reservoirs in temperate and subtropical/tropical regions of North and South America. The greatest number of crustacean species was found in the temperate-oligotrophic regions. However, cumulative species richness was similar in temperate and subtropical/tropical regions when comparing subsets with similar number of lakes and reservoirs. The relationship between species richness and latitude were difficult to assess due to imbalance among regions in number of lakes/reservoirs sampled. Trophic status was associated with clear changes in abundance of all major crustacean zooplankton groups. Eutrophic ecosystems supported greater crustacean abundances at all latitudes. Cladocerans and cyclopoids were more abundant in eutrophic lakes and reservoirs, whereas calanoids were more abundant in oligotrophic temperate lakes. Total phosphorus was found to be a better predictor of the biomass of major crustacean groups than chlorophyll *a* in all regions.

Key words: tropical and temperate ecosystems, trophic status, latitude, crustacean zooplankton.