

New article published in *Oecologia* about temperature and species richness effects in phytoplankton communities:

In this study, we investigated the combined effects of temperature and diversity on phytoplankton growth. In a controlled laboratory experiment, monocultures of different freshwater phytoplankton taxa (green algae, cyanobacteria, and diatoms) as well as mixed communities of different species richness (2–12 species) and taxa composition were exposed to different temperatures (12, 18, and 24 °C).

Increased species richness had a positive effect on phytoplankton growth rates and phosphorous content at all temperature levels, with maximum values occurring at 18 °C. Overyielding was observed at almost all temperature levels and could mostly be explained by complementary traits. Higher temperatures resulted in higher fractions of cyanobacteria in communities. This negative effect of temperature on phytoplankton diversity following a shift in community composition was most obvious in communities adapted to cooler temperatures, pointing to the assumption that relative temperature changes may be more important than absolute ones.

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