

## Species specific response to iron stress

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Iron is known to be a key nutrient controlling phytoplankton production in high nutrients/low chlorophyll ocean regions. There is a great diversity in strategies phytoplankton employ to overcome iron limitation including the reduction of iron requirements, efficiency of iron acquisition, ability to utilize xenosiderophores, and iron storage mechanisms. We focus on a comparative analysis of the algal strategies to cope with iron limitation. For this, we have chosen species that cover a range of ecological niches: model diatom *Phaeodactylum tricorutum*, oceanic diatom *Thalassiosira oceanica*, harmful dinoflagellate *Amphidinium carterae*, model Rhizaria *Bigeloviella natans*, widespread coccolithophore *Emiliana huxleyi*, picoalga *Ostreococcus taurii*, chlorophyta *Tetraselmis sp.* and euglenid *Eutreptiella gymnastica*. Using different biochemical and biophysical methods we have compared iron acquisition and utilization in these species and investigated how iron availability influences their photosynthetic parameters.