

**MIXOTROPHY BY TWO ANTARCTIC PHYTOFLAGELLATES**

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Mixotrophy is reportedly advantageous for protist occupying 'extreme' environments. Using *Pyramimonas gelidicola*, and a cryptophyte that periodically dominate both Ace Lake and the marine environment, we examined uptake of microspheres, bacteria and dextrans, and performed culture growth experiments using media supplemented with D-glucose. Both species fed over a wide size spectrum (4 Kd MW to 1  $\mu\text{m}$ ) and became osmotrophic when natural irradiances were low. Addition of D-glucose to culture media increased the growth rate of both species. Our results further demonstrate that mixotrophy can enhance survival and growth of phytoflagellates in extreme, polar aquatic environments.