

**Table 2.** Estimated *Prochlorococcus* Growth Rates and Nitrogen Demand for Populations Collected in the Sargasso Sea, Including Data From This Study and the Literature<sup>a</sup>

Method	Rate
Total Nitrogen Uptake growth rate, d <sup>-1</sup>	0.42 ± 0.17 <sup>b</sup>
Growth rate by cell-cycle analysis, d <sup>-1</sup>	0.60 ± 0.10 <sup>c</sup>
Growth rate by dilution experiment, d <sup>-1</sup>	0.23 ± 0.03 <sup>d</sup>
	0.53 ± 0.08 <sup>c</sup>
Nitrate-specific growth rate, d <sup>-1</sup>	0.01 ± 0.004 <sup>e</sup>
Net population growth rate, d <sup>-1</sup>	~0.011 <sup>f</sup>
Estimated Nitrate influx, μmol m <sup>-3</sup> d <sup>-1</sup>	146 (2 – 890) <sup>g</sup>
Estimate Nitrate demand, μmol m <sup>-3</sup> d <sup>-1</sup>	126 ± 48 <sup>h</sup>

<sup>a</sup>Values are the means and std errors of all measurements available, unless otherwise noted.

<sup>b</sup>This study, see auxiliary material for calculation details.

<sup>c</sup>Worden and Binder [2003]; samples collected from 50 m (~8% light level) and all data from southern and northern Sargasso Sea stations are combined.

<sup>d</sup>Kuipers and Witte [2000]; samples collected from ~100 m along a transect from 10° to 35°N, all data are combined.

<sup>e</sup>Growth rate estimated from NO<sub>3</sub><sup>-</sup> uptake, see auxiliary material for calculation details.

<sup>f</sup>Estimated from the points denoted by the blue arrows in Figure 1c.

<sup>g</sup>Lewis *et al.* [1986] 95% confidence limits in parentheses.

<sup>h</sup>Estimated from NO<sub>3</sub><sup>-</sup> uptake and cell numbers, see auxiliary material for calculation details.

Kuipers, B. R., and H. J. Witte (2000), Prochlorophytes as secondary prey for heterotrophic nanoflagellates in the deep chlorophyll maximum layer of the (sub)tropical North Atlantic, *Mar. Ecol. Prog. Ser.*, 204, 53–63.  
 Lewis, M. R., W. G. Harrison, N. S. Oakey, D. Herbert, and T. Platt (1986), Vertical nitrate fluxes in the oligotrophic ocean, *Science*, 234, 870–872.  
 Worden, A. Z., and B. J. Binder (2003), Application of dilution experiments for measuring growth and mortality rates among *Prochlorococcus* and *Synechococcus* populations in oligotrophic environments, *Aquat. Microbial Ecol.*, 30, 159–174.