

Table S1. Input and output ratios of marker pigments to Chl *a* for the selected phytoplankton groups. Peri, 19'-but, Fuco, 19'-hex, Ddx, Allo, Zea and Chl *b* represent peridinin, 19'-butanoyloxyfucoxanthin, fucoxanthin, 19'-hexanoyloxy fucoxanthin, diadinoxanthin, alloxanthin, zeaxanthin and chlorophyll *b*, respectively. Definition of phytoplankton groups abbreviations is shown in Fig. 5.

	Peri	19'-but	Fuco	19'-hex	Ddx	Allo	Zea	Chl <i>b</i>	Chl <i>a</i>
Input ratios									
Chloro	0	0	0	0	0	0	0.031	0.283	1
Dino	0.547	0	0	0	0.247	0	0	0	1
Diat	0	0	0.81	0	0.318	0	0	0	1
Crypto	0	0	0	0	0	0.354	0	0	1
Cyano	0	0	0	0	0	0	1.337	0	1
Chryso	0	1.563	0.974	0	0.857	0	0	0	1
Prym	0	0.023	0.304	0.27	0.113	0	0	0	1
Output ratios									
Chloro	0	0	0	0	0	0	0.031	0.283	1
Dino	0.852	0	0	0	0.043	0	0	0	1
Diat	0	0	0.81	0	0.044	0	0	0	1
Crypto	0	0	0	0	0	0.354	0	0	1
Cyano	0	0	0	0	0	0	1.337	0	1
Chryso	0	1.563	0.974	0	0.857	0	0	0	1
Prym	0	0.023	0.304	0.27	0.113	0	0	0	1