

Fig. S1. Longitude-time plots of the  $\text{NO}_3$  (left panel) and  $\text{Fe}$  (right panel) concentration in the Equatorial Pacific region ( $10^\circ\text{N}$ - $10^\circ\text{S}$ ) over 1996- 2007.

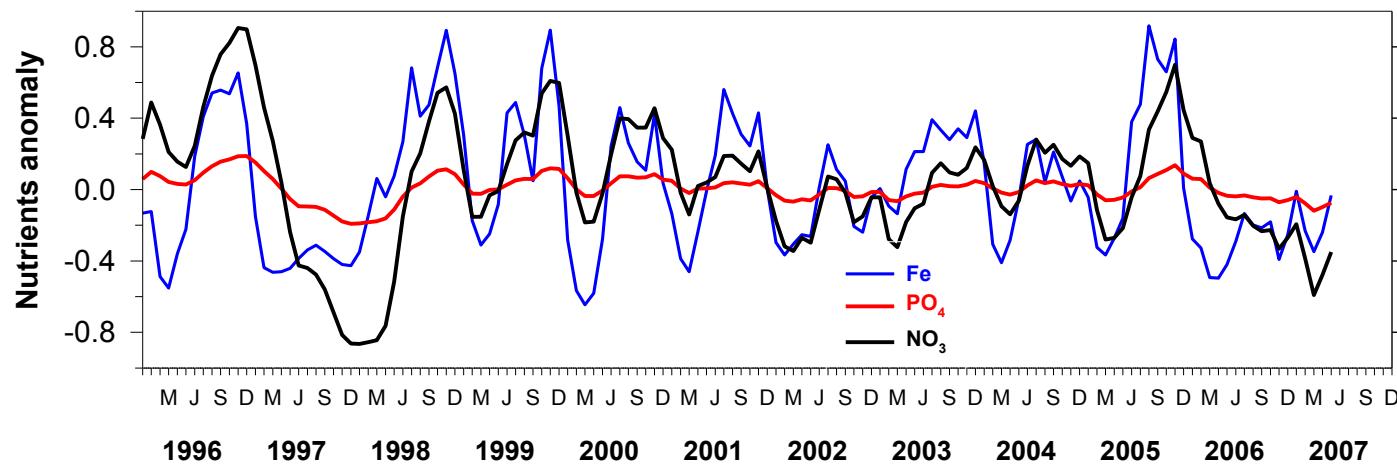


Fig. S2. Anomaly of nutrients in the core of the PFT shift region ( $140^{\circ}\text{W}$ - $100^{\circ}\text{W}$ ,  $10^{\circ}\text{N}$ - $10^{\circ}\text{S}$ ) during ENSO cycles.

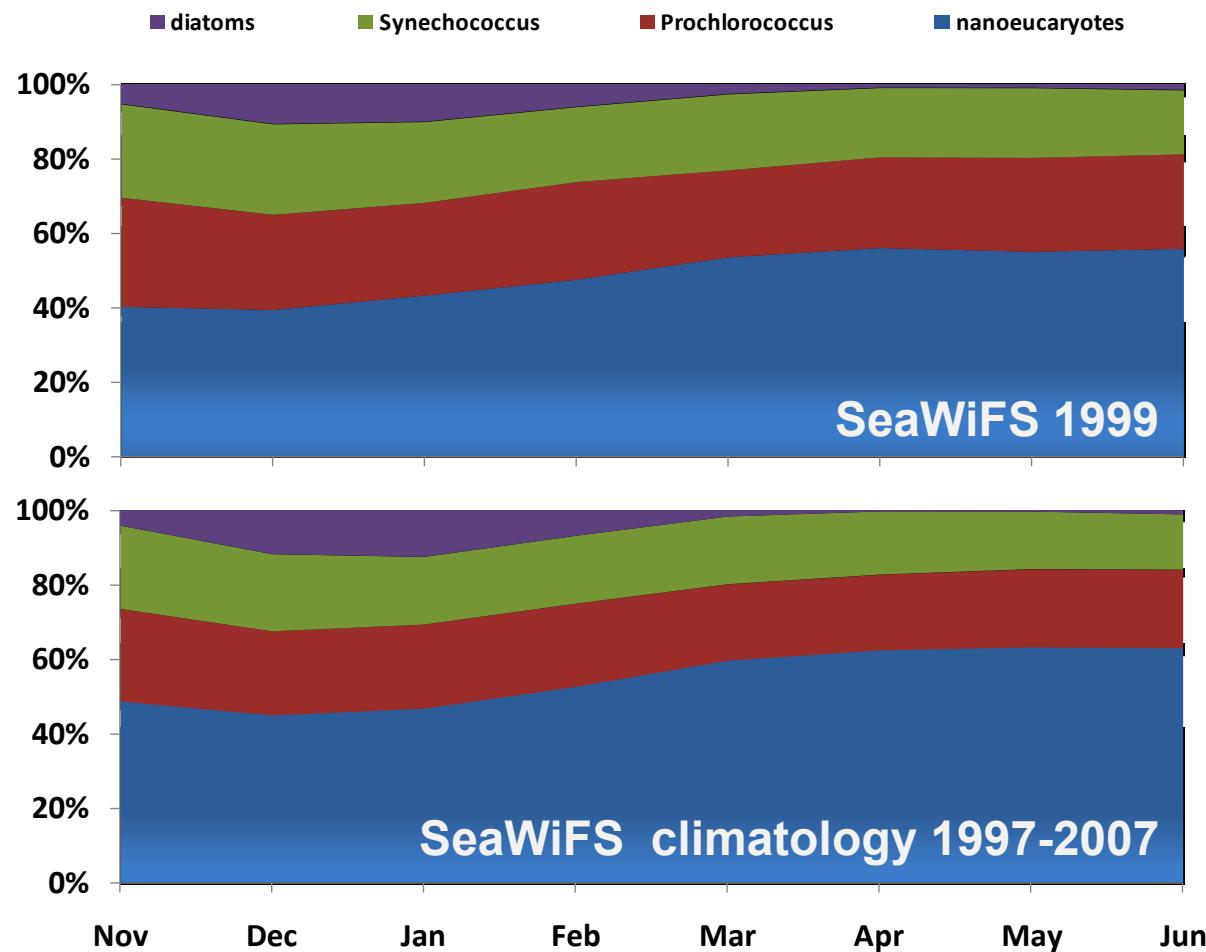


Fig. S3. A comparison of the monthly areal coverage (in percentage) by each PFT obtained from SeaWiFS 1999 year (upper panel) and SeaWiFS climatology between 1997-2007 (bottom panel).