

**Supporting Information**  
**Environmental Science & Technology**

**Phosphorus limits phytoplankton growth on the Louisiana shelf during the period of  
hypoxia formation**

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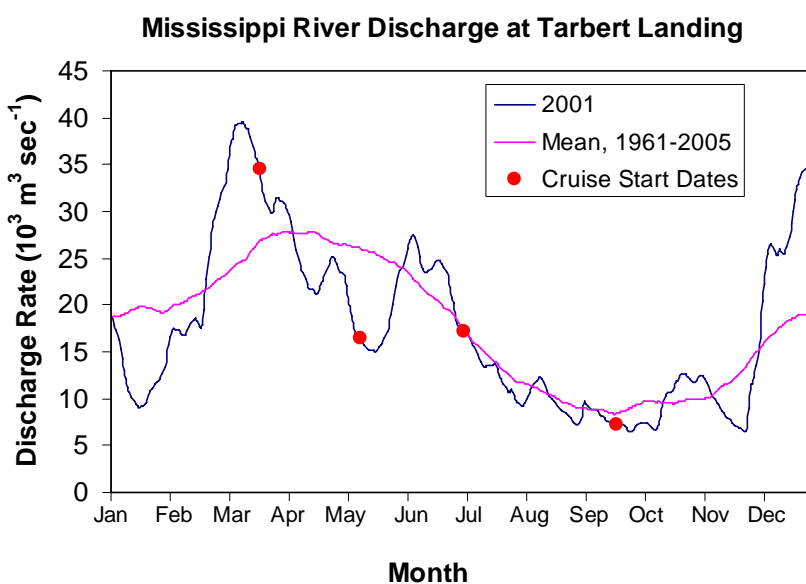
Four total pages

Figure S1

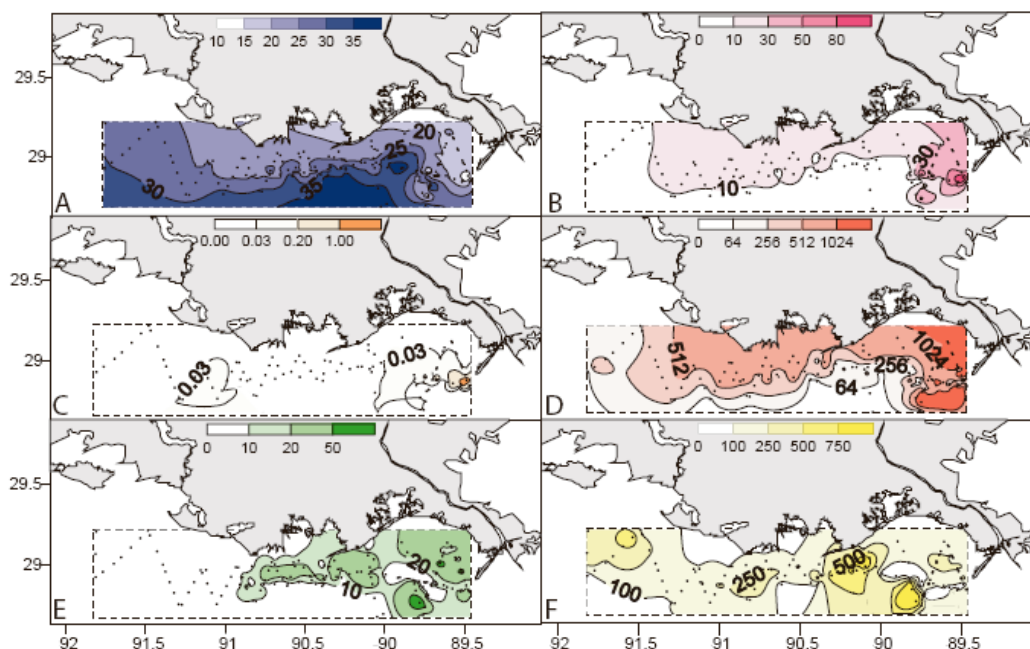
Figure S2

Figure S3

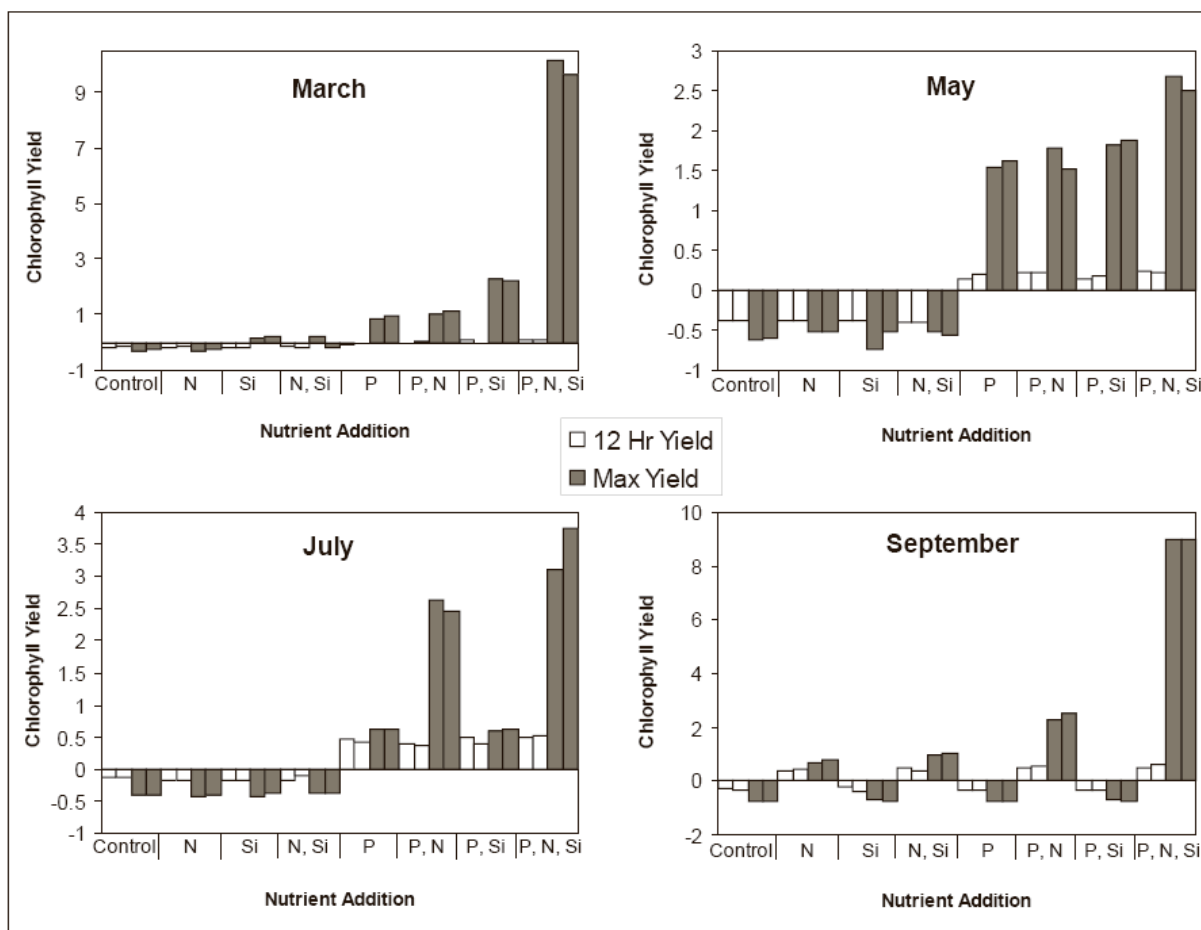
## Figures



**FIGURE S1. Mississippi River flow at Tarbert Landing, Mississippi. Mississippi River flow pattern in 2001 and the mean flow pattern for the years 1961-2005. Periods of sampling in 2001 are also marked; data from the U.S. Army Corps of Engineers.**



**FIGURE S2. May 10-14, 2001 mapping results. Panels show contours of salinity in PSU (A), Dissolved Inorganic Nitrogen ( $\text{DIN} = \text{NO}_3^- + \text{NO}_2^- + \text{NH}_4^+$ ) in  $\mu\text{M}$  (B), Orthophosphate ( $\text{P}_i$ ) in  $\mu\text{M}$  (C), DIN: $\text{P}_i$  (D), Chlorophyll-*a* in  $\mu\text{g l}^{-1}$  (E), and Alkaline Phosphatase activity in  $\text{nmol l}^{-1} \text{hr}^{-1}$  (F). Dashed lines show the outline of the shelf box, solid lines are the contours and dotted lines are the cruise track.**



**FIGURE S3. Twelve hour and maximum Chlorophyll-*a* yields from location B (Figure 1) bioassay experiments in March, May, July, and September 2001. Bars represent results from replicate 10-liter carboys for each nutrient addition. Negative values for controls and all nutrient additions without added P indicate that Chlorophyll -*a* decreased with time in those treatments.**