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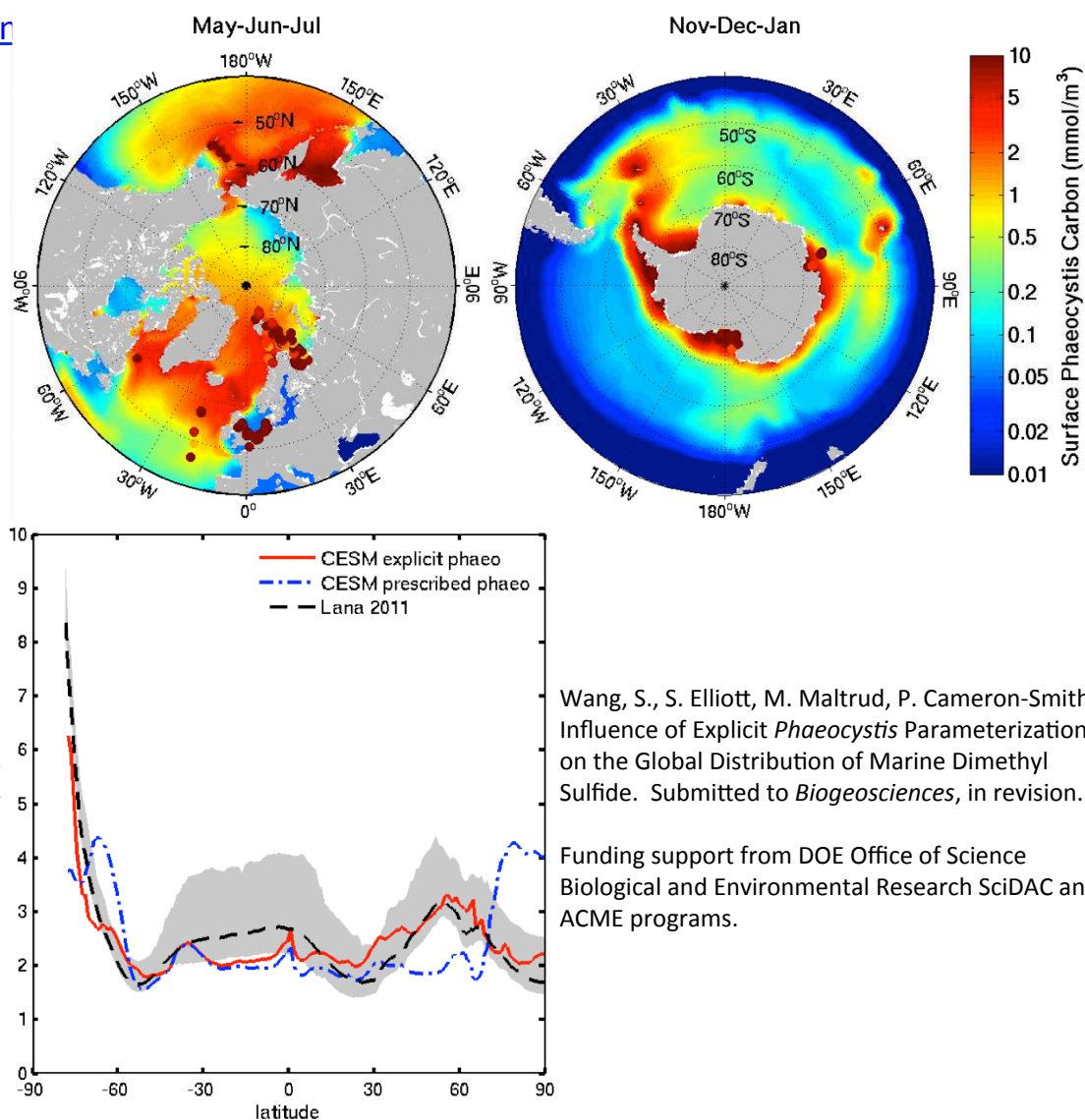
# Marine Aerosol Precursor Emissions for Earth System Models (w14\_marineaerosol)

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- Simulated *Phaeocystis* plankton biomass with sparse available data superimposed as colored circles. The combination of monthly averaging and the relatively coarse resolution of the model grid results in appropriately lower values than the single-time, single-location data.
- Annual ocean surface concentration of dimethyl sulfide (DMS) averaged over all longitudes. Our previous model is represented by the blue curve, the new model by the red curve, and the black curve (with grey shading representing uncertainty) is based on observations. Including *Phaeocystis* is crucial for realistic simulation of DMS, which is an important natural source of sulfur for formation of atmospheric aerosols that control cloud properties.



Wang, S., S. Elliott, M. Maltrud, P. Cameron-Smith: Influence of Explicit *Phaeocystis* Parameterizations on the Global Distribution of Marine Dimethyl Sulfide. Submitted to *Biogeosciences*, in revision.

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