

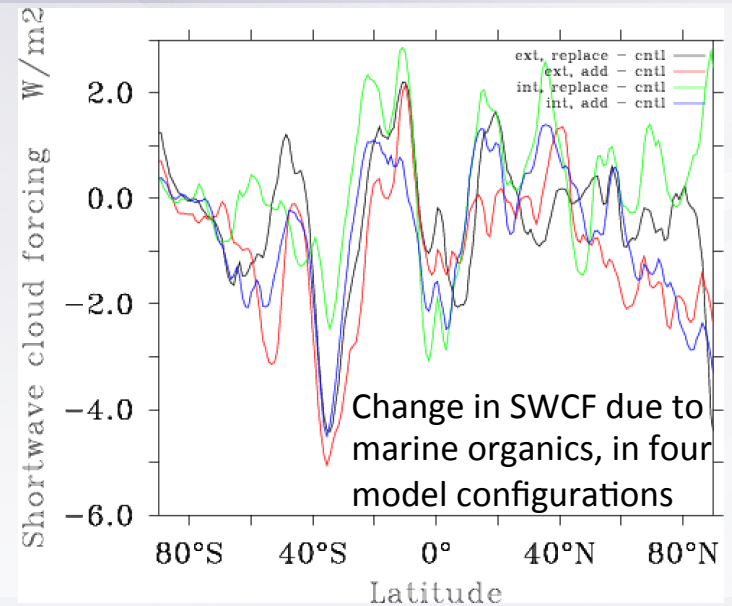
# Climate impacts of marine organic aerosols

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## Objective

Phytoplankton adds organic matter to sea spray aerosol, with impacts on remote marine cloud brightness and reflected shortwave radiation.



## Implementation and evaluation of a new representation of marine organic matter emissions in ACME

- Atmosphere portion of a new marine organic aerosol representation (Burrows et al., 2014) is fully implemented in ACME v1.
- Initial evaluation shows impacts on cloud forcing over the Southern Ocean of a few  $W/m^2$  in DJF season, appears to agree with top-down estimates of sensitivity.