

Climate Change & Marine Biogeochemical Modeling from Local to Global Scales

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NSF Science Council Meeting (May 2011)

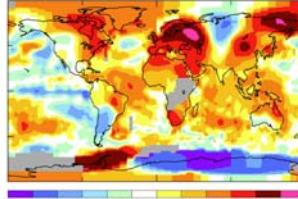
Outline

- Climate change trends on West Antarctic Peninsula (WAP)
- Local & regional food-web impacts
- Global primary production & plankton community structure trends

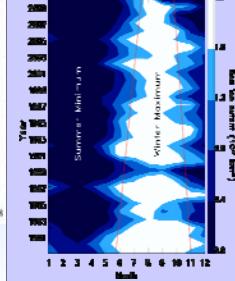


Climate Trends along Western Antarctic Peninsula

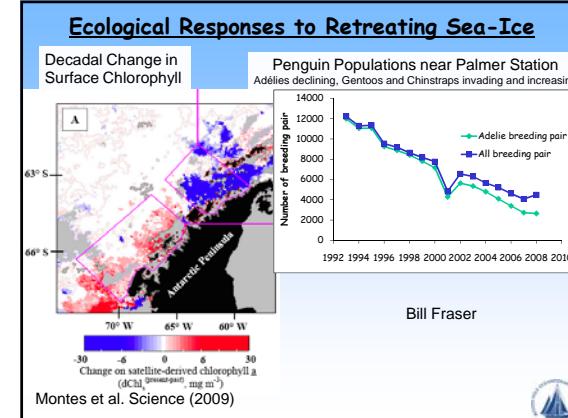
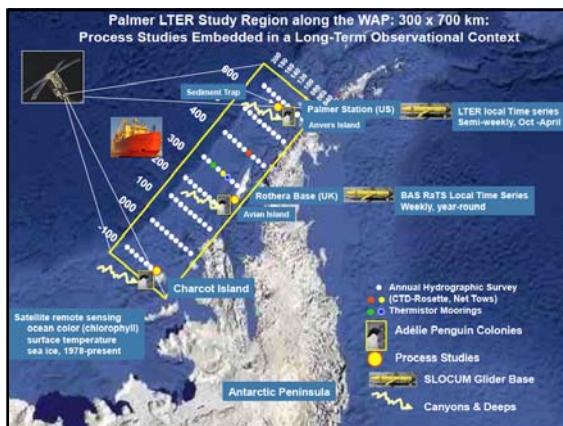
July 2010 Surface Temperature Anomaly (°C)
[Base Period: 1951–1980]



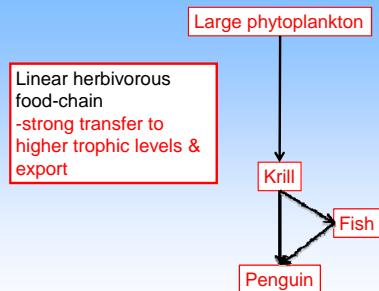
ICE Sat Ice Index



- Rapid warming along WAP ~5x global average
- Reduced sea-ice cover & expanding seasonal ice free conditions



Inverse Model of WAP Food Web



Inverse Model of WAP Food Web

