

Pelagic Ecosystems, British Antarctic Survey

How do life-history strategies determine species responses to change?

How does food-web structure modify response of individual species and determine the response of the ecosystem to change?

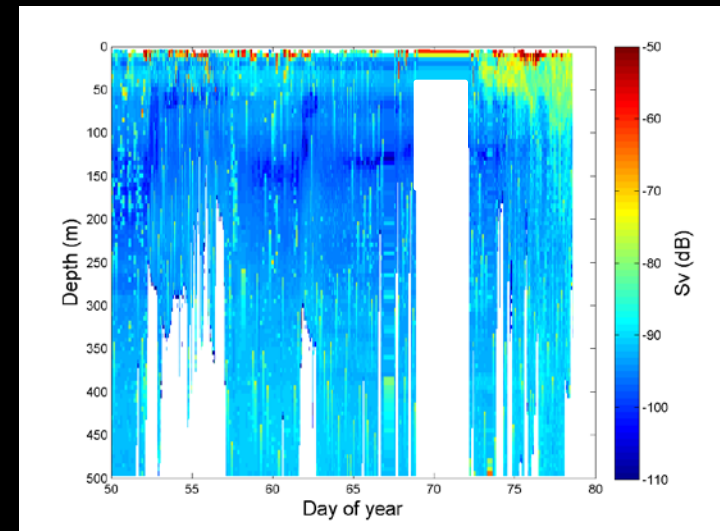
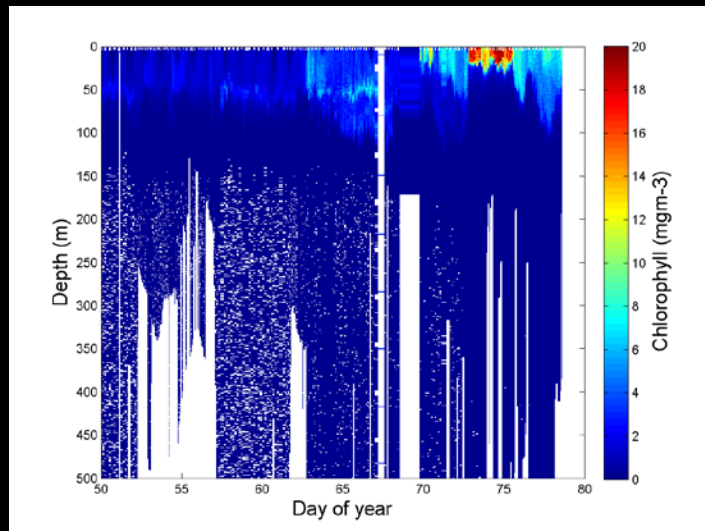
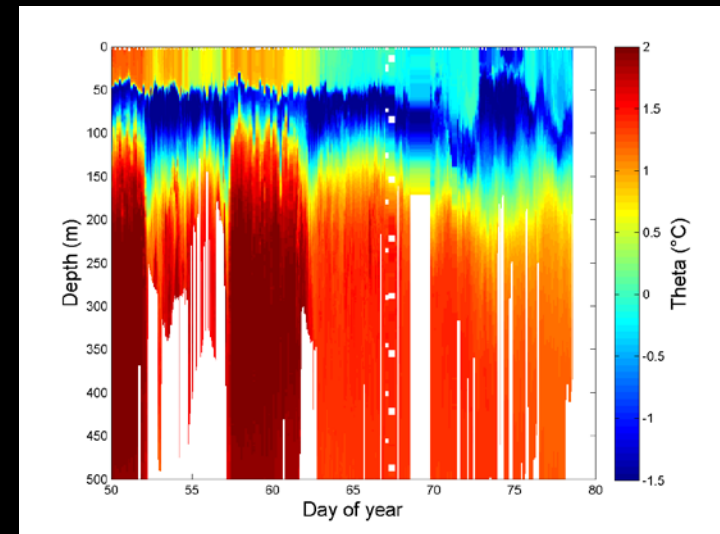
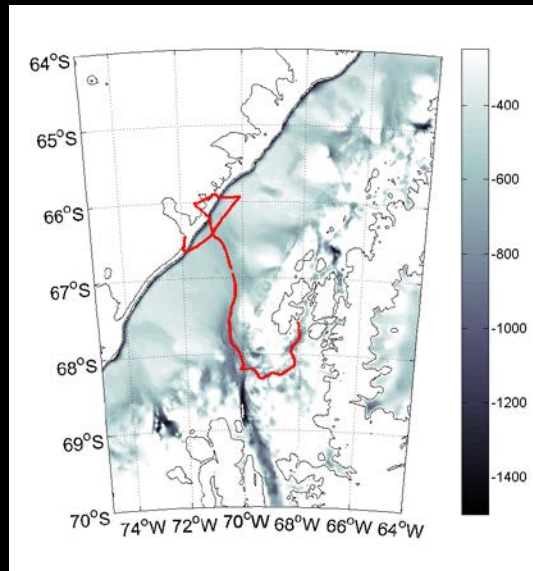
How do large-scale physical and biological processes interact to determine the response of ocean ecosystems to change?

Technological and method development and application for resolving zooplankton/micronekton

Sophie Fielding



Acoustics from gliders

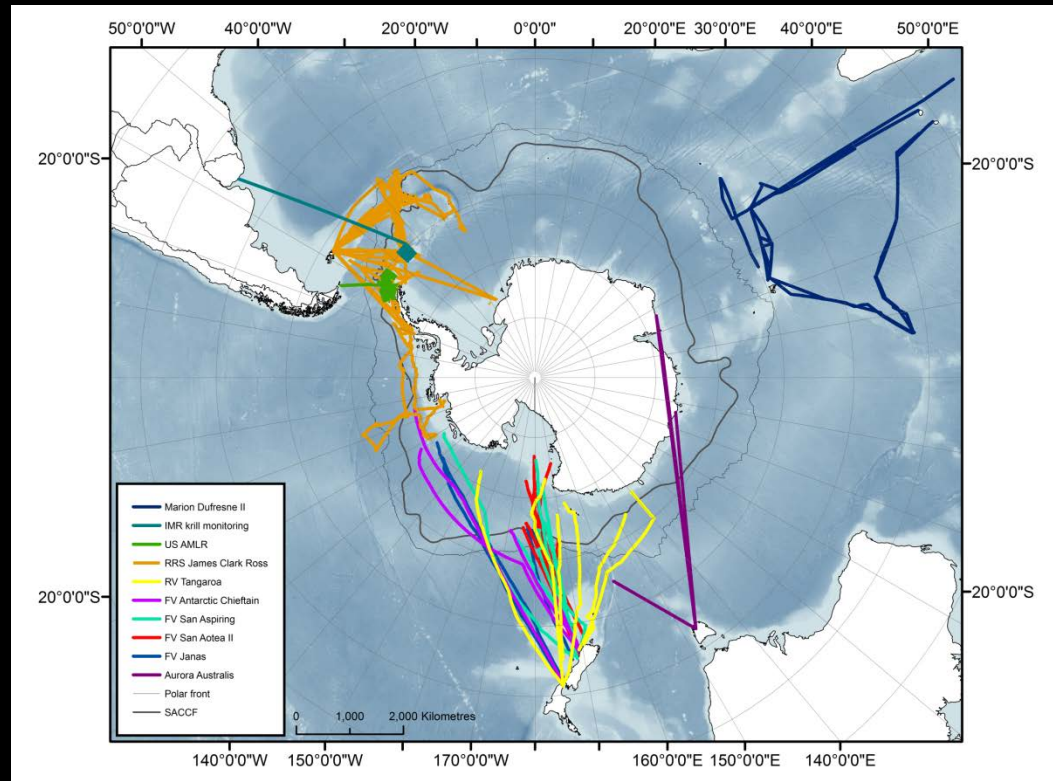
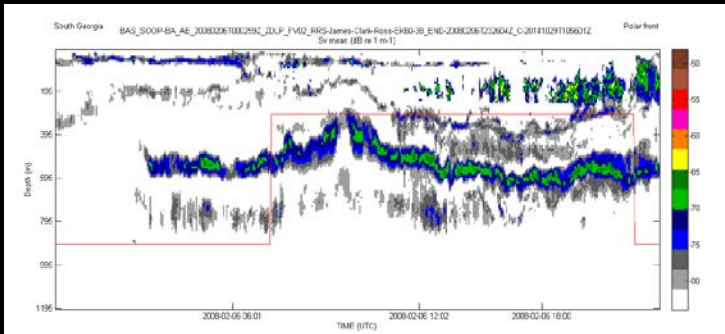


Guihen et al. 2014; Suberg et al 2014 (UEA, NOC, CEFAS)



Southern Ocean Network of Acoustics

1. Lead, coordinate and support the Antarctic scientific community in creating an **open access database** of acoustic observations of the mid-trophic level.
2. Develop and adopt **common standards and methodologies** for acoustic data collection and metadata.
3. Implement a **self-sustaining long-term acoustic observing strategy** framed within the international observing and modelling communities (e.g. SOOS, CCAMLR, ICED).



Q: How will changing seasonality in the sea-ice zone affect the structure and functioning of Arctic ocean ecosystems?

Q: How do ecosystem structure and functioning change across a latitudinal gradient?

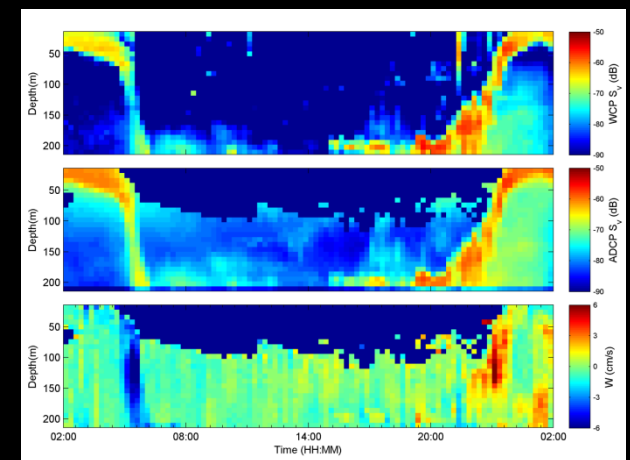
Q: How do polar ecosystem structure and functioning compare

Ocean acidification (Clara Manno, Geraint Tarling, NERC programme)

Biological carbon cycling (e.g. COMICS NOC, BAS, Queen Mary University, University of Southampton)

ICED Integrated Climate and Ecosystem Dynamics (Integration, modelling and projection – IMBER regional programme)

BAS currently involved in 4 DTPS (EnvEast, GW4+, SPITFIRE, Cambridge Earth System Science)



P2 Sediment trap mooring (3200m water depth)

