Physical controls on deep-water coral communities on the George V margin, East Antarctica

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CEAMARC 2007/2008
Relevance

- CEAMARC located dense coral community.
- Resulted in two new CCAMLR VME sites.
- Where are other VME sites on margin?
- Can we use abiotic variables to predict?
George V shelf
Antarctic Peninsula
South Orkney Islands
Ross Sea
Amundsen Sea
Antarctic Peninsula
Mertz Glacier

Abiotic variables

- Below iceberg keel depth limits.
- Influence of dense bottom water.
- Near shelf-incised canyons.
Future research

• Geomorphic maps for predicting VMEs.
• Improving bathymetry models.
• VME resistance/resilience analysis.
• Environmental suitability maps.
Conclusion

- CCAMLR declared two new VME sites.
- Located deeper than iceberg keel depths.
- Located within dense bottom water flow.
- Located near shelf-incised canyons.
- Environmental suitability maps.
Further reading


• Beaman, R.J., O'Brien, P.E., Post, A.L. and De Santis, L.. A new high-resolution depth model for the Terre Adélie and George V shelf and margin, East Antarctica. Antarctic Science. (accepted)