

Is snowfall in Antarctica linked to rainfall in Australia?

Research into snowfall variability at Law Dome, just inland from Casey station, suggests that it may be linked to climate in the Australian sector of the Southern Ocean and south-west Western Australia.

Law Dome is directly south of Western Australia and is the most northerly continental point in East Antarctica. This location gives Law Dome a strong maritime climate and a very high snow accumulation rate – equivalent to around 64 cm of water per year. Ice cores drilled at Law Dome provide a record of annual variations in snowfall that can presently be extended back over seven centuries. This record can be compared with meteorological data in the recent past.

Early results show that the snowfall at Law Dome is significantly inversely correlated with the climate at mid-latitudes, extending as far as southern Australia. These results may shed light on recent changes in southern Australian climate, such as the declining rainfall in south-west Western Australia. Further work is underway to explore these connections and understand the reasons behind them.

TAS VAN OMMEN
Ice, Ocean, Atmosphere and Climate programme, AAD



Snowfall variability at Law Dome may be linked to climate in south-west Western Australia.

GRANT DIXON

NEW REGULATIONS FOR AN EXPANDING KRILL FISHERY

The October meeting of the Commission for the Conservation of Antarctic Living Resources (CCAMLR), resulted in a new regulatory regime for the rapidly expanding Southern Ocean krill fishery.

With the world's fish stocks dwindling, attention has turned to the largest underexploited fishery – the Antarctic krill fishery – which is predicted to become one of the world's largest fisheries. To deal with this increasing pressure, CCAMLR Members agreed that krill vessels fishing in CCAMLR waters must participate in the CCAMLR vessel monitoring system (*Australian Antarctic Magazine* 7: 32), and that vessels operating in waters off eastern Antarctica must have observers aboard.

New measures will also require:

- more rigorous notifications to participate in the krill fishery, to ensure that CCAMLR can implement management measures appropriate for the level of fishing effort;
- more frequent reporting of krill catches so that the fishery can be closed before the new trigger level is reached; and
- introduction of additional management tools to ensure the sustainability of the Southern Ocean ecosystem prior to the fishery reaching its full potential.

The annual precautionary catch limit for the CCAMLR fishery off the coast of eastern Antarctica has been increased from 450 000 tonnes to 2.645 million tonnes, based on scientific advice from a 2006 Australian survey of krill in the area. The survey obtained an estimated biomass of 28.75 million tonnes, which could sustain a 2.645 million tonne krill fishery and still allow for the feeding requirements of penguins, seals and whales.

GILL SLOCUM,
Antarctic Territories, Environment and Policy, AAD
SO KAWAGUCHI,
Southern Ocean Ecosystems programme, AAD



GAVIN JOHNSTONE

Krill vessels fishing in CCAMLR waters must participate in the CCAMLR vessel monitoring system.