"At the same time there will be a change in the time of year when krill habitat is optimal, improving in spring, but declining in important regions during summer and autumn."

Ms Veytia said the shift in seasonal habitat quality, especially around the Antarctic Peninsula, could disturb the synchronisation between krill and the annual cycle of this important ecosystem.

"Synchronisation usually allows krill to capitalize on seasonally available food sources, allowing growth, reproduction and storing of reserves to survive the winter.

"A temporal shift in habitat quality could create a timing mismatch, potentially affecting krill reproduction and population dynamics.

"The commercial fishery, which is currently centred to block n tarctic restriction and south Scotia Sea, could also be affected, leading to shifts in the distribution and timing of the fishing effort.