



## RECENT COOLING IN THE NORTH OF THE ANTARCTIC PENINSULA

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Warming of the Antarctic Peninsula has been presented in recent years as indication of global warming. This paper shows that in the last 14 years, 1996-2009, there was actually a decrease in the annual average air temperature in the north of the Peninsula. Data series for Orcadas (60.7°S; 44.7°W), Ferraz (62.1°S; 58.4°W), Bellingshausen (62.2°S; 58.9°W), Marambio (62.2°S), Vernadsky/Faraday (65.3°S; 64.3°W) and Rothera (67.6°S; 68.1°W) are presented and indicate decreasing or stable trends; this is also the case for the other weather stations in the region. The strongest cooling gradient is at Marambio, -0.7°C/decade, while the warmest, +0.01°C/decade occurred at Vernadsky. Although the number of years is small for a significance analysis, the temperature decrease is a fact in the area and cold years like 2007 and 2009 occurred only ~20 years before. Considering the standard climatology span of 30 years, there is no defined gradient; however, the full length of records for these stations indicate warming, ranging from +0.7°C/decade at Rothera since 1978, to +0.2°C/decade at Orcadas since 1904. Synoptic circulation patterns that vary on a one-to-two year basis and decadal oscillations in the southern hemisphere ocean seem to explain the current climate variations in the north of the Peninsula.