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REGIONAL PATTERNS OF DIVERSITY IN ANTARCTIC HAIRGRASS (*DESCHAMPSIA ANTARCTICA*)

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Antarctic Hair-grass (*Deschampsia antarctica* Desv.) is one of only two seed plants present in the Antarctic region. Many of the populations are isolated, as they are located on islands or interspersed by glaciers. This poster describes the results of a project investigating patterns of genetic diversity between and within geographically disjunct populations.

DNA fingerprinting techniques (AFLP's) have revealed a clear separation in regions. Plants from the Falkland Island area, the Indian Ocean area and the maritime Antarctic form distinct genetic groups. A gradient in decreasing diversity going from the Falklands, South Georgia, South Orkneys and along the Antarctic Peninsula was observed. A very low diversity was observed in the Indian Ocean region. The same, dominant genotype was observed at all three island groups: Kerguelen, Crozet and Heard Island.

Over 7500 bp of non coding areas of the chloroplast genome were sequenced. We found a very low diversity, with only four polymorphic areas, representing three different chloroplast lineages. One lineage is present in the Indian Ocean, the largest group is present from South America to the entire west Antarctic area. On the South Orkneys this same group was found, together with a lineage which was restricted to this area.