

GENETIC VARIABILITY IN THE ANTARCTIC HAIRGRASS FROM MARITIME ANTARCTIC AND SUBANTARCTIC

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The level of polymorphism, genetic variability and relatedness of the Antarctic hairgrass *Deschampsia antarctica* Desv. populations from South Shetlands Is. (King George I., Penguin I., Livingstone I.), from vicinity of Antarctic Peninsula (Galindez I., Uruguay I.), and Falklands Is. (Jason Is., Sea lion I.) were studied using AFLP approach. Six *EcoRI/MseI* type selective primer pairs combinations used for AFLP profiling amplified 435 scoreable DNA fragments that were used for AMOVA and PCA. The level of molecular variability among all individuals from all the analyzed populations was low and reach only 5.4 %. PCA analysis show that all populations formed uniform groups according to their locations.

Our molecular analysis has revealed that, in general, all the *Deschampsia antarctica* populations are mostly similar to one another. The populations that are spatially separated by distance also differ at the molecular level. However, the differences are not too large. Similarly, populations that are in the very vicinity are nearly identical. Finally, we argue that at least some of the populations might be influenced by human activity while the others seem to be the effect of fragmentation of the population.