

## PREFACE

Motivated by the Northern Hemisphere International Tundra Experiment (ITEX), Dana Bergstrom instigated a workshop in Brisbane, Australia, in 1998 to discuss the concept for a Southern Hemisphere ITEX using a series of networked sites in and around Antarctica. Instead of following the ITEX model of looking at variations in organismal performance with longitude, the new program would be based around the premise that latitude and altitude could act as proxies or predictors for future climate change. Using the power of the internet, these concepts and intentions were disseminated to researchers who formed various discussion groups. There were instant replies from Ad Huiskes and Burkhard Schroeter in Europe, who exclaimed that they had conceived a similar concept while tent-bound in a blizzard on the Antarctic Peninsula.

Thus began the SCAR program, Regional Sensitivity to Climate Change in Antarctic Terrestrial and Limnetic Ecosystems (RiSCC). An initial workshop was hosted by Antonio Quesada and Leo Sancho, with support from the Spanish Antarctic Program, to further develop the concept. This was followed by a science planning workshop, hosted by Steven Chown in South Africa. These workshops defined the foundations for the RiSCC Program, which were to study changes and patterns in species diversity and organismal performance around Antarctica. The data collected were to be linked with latitude along the "Antarctic Environmental Gradient", which extends over 40° of latitude from Marion Island at 47°S to the Transantarctic Mountains at 87°S, and includes a range of climatic zones present on the cool temperate oceanic islands to the frigid and arid Antarctic continent.

RiSCC ran for just over five years (2000–2005), before being absorbed within the new framework of SCAR international scientific programs, and contributing to the development of its successor program "Evolution and Biodiversity in Antarctica". Without a doubt, RiSCC has been a very successful enterprise and catalyst when seen from a number of perspectives: almost 200 peer-reviewed scientific publications have emerged from the scientific activities associated with the program, a strong international science network has developed with the active involvement of scientists from over 18 nations, and RiSCC proved the nexus for several successful international expeditions.

RiSCC has helped to improve our understanding of the interactions and linkages among climate change, indigenous and alien species, and the ways in which ecosystems function. This volume is a culmination of the efforts and findings of the RiSCC community. We would like to thank all our authors for their efforts, and the members of the RiSCC program in general whose scientific findings are reported

here. We thank all referees for their prompt efforts to provide sage advice on all chapters in this volume. We would also like to thank Eric Woehler for his enormous efforts in helping us get the book to publication. Eric has filled numerous roles including sub-editor, illustrator and tireless supporter of the project, and has dedicated five months of his life to this cause.

We dedicate the book to one of the original RiSCC 'Three Musketeers', Burkhard Schroeter, who while no longer pursuing his passion for Antarctic field research, now perhaps has a far more important role in life, that of teaching and inspiring the next generation of scientists.

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