Alpine Plant Life - Functional Plant Ecology of High Mountain Ecosystems

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This book is a completely revised, substantially extended treatment of the physical and biological factors that drive life in high mountains. The book covers the characteristics of alpine plant life, alpine climate and soils, life under snow, stress tolerance, treeline ecology, plant water, carbon, and nutrient relations, plant growth and productivity, developmental processes, and two largely novel chapters on alpine plant reproduction and global change biology. The book explains why the topography driven exposure of plants to dramatic micro-climatic gradients over very short distances causes alpine biodiversity to be particularly robust against climatic change. Geographically, this book draws on examples from all parts of the world, including the tropics. This book is complemented with novel evidence and insight that emerged over the last 17 years of alpine plant research. The number of figures-mostly in color- nearly doubled, with many photographs providing a vivid impression of alpine plant life worldwide.