

Plant Ecology

An international journal Formerly Vegetatio

CONTENTS • VOLUME 182 • NO. 1–2 • 2006

Special issue on:

PLANTS AND CLIMATE CHANGE

Edited by:

Jelte Rozema, Rien Aerts and Hans Cornelissen

Global climate change: atmospheric CO₂ enrichment, global warming and stratospheric ozone depletion

Responses of terrestrial Antarctic ecosystems to climate change

P. Convey and R.I.L. Smith

1–10

Atmospheric CO₂ enrichment

Vascular plant responses to elevated CO₂ in a temperate lowland *Sphagnum* peatland

R. Milla, J.H.C. Cornelissen, R.S.P. van Logtestijn, S. Toet and R. Aerts

13–24

Moss responses to elevated CO₂ and variation in hydrology in a temperate lowland peatland

S. Toet, J.H.C. Cornelissen, R. Aerts, R.S.P. van Logtestijn, M. de Beus and R. Stoevelaar

27–40

From transient to steady-state response of ecosystems to atmospheric CO₂-enrichment and global climate change: conceptual challenges and need for an integrated approach

L.E. Rustad

43–62

Plant performance in a warmer world: general responses of plants from cold, northern biomes and the importance of winter and spring events

R. Aerts, J.H.C. Cornelissen and E. Dorrepaal

65–77

Global warming

Stable isotope ratios as a tool for assessing changes in carbon and nutrient sources in Antarctic terrestrial ecosystems

A.H.L. Huiskes, H.T.S. Boschker, D. Lud and T.C.W. Moerdijk-Poortvliet

79–86

Upscaling regional emissions of greenhouse gases from rice cultivation: methods and sources of uncertainty

P.H. Verburg, P.M. van Bodegom, H.A.C.D. van der Gon, A. Bergsma and N. van Breemen

89–106

Stratospheric ozone depletion

Effects of enhanced UV-B radiation on nitrogen fixation in arctic ecosystems

B. Solheim, M. Zielke, J.W. Bjerke and J. Rozema

109–118

Stratospheric ozone depletion: high arctic tundra plant growth on Svalbard is not affected by enhanced UV-B after 7 years of UV-B supplementation in the field

J. Rozema, P. Boelen, B. Solheim, M. Zielke, A. Buskens, M. Doorenbosch, R. Fijn, J. Herder, T. Callaghan, L.O. Björn, D.G. Jones, R. Broekman, P. Blokker and W. van de Poll

121–135

Outdoor studies on the effects of solar UV-B on bryophytes: overview and methodology P. Boelen, M.K. de Boer, N.V.J. de Bakker and J. Rozema	137–152
Reconstruction of Past Climates using plant derived proxies	
A vegetation, climate and environment reconstruction based on palynological analyses of high arctic tundra peat cores (5000–6000 years BP) from Svalbard J. Rozema, P. Boelen, M. Doorenbosch, S. Bohncke, P. Blokker, C. Boekel, R.A. Broekman and M. Konert	155–173
Physiognomic and chemical characters in wood as palaeoclimate proxies I. Poole and P.F. van Bergen	175–195
The occurrence of <i>p</i> -coumaric acid and ferulic acid in fossil plant materials and their use as UV-proxy P. Blokker, P. Boelen, R. Broekman and J. Rozema	197–207
Biomacromolecules of algae and plants and their fossil analogues J.W. de Leeuw, G.J.M. Versteegh and P.F. van Bergen	209–233
Subject index / Species index	235–259
Author index	261

Available
online

www.springerlink.com