

University of Cape Town
Research Report 2004
Faculty of Science
Department of Botany

(Including the Bolus Herbarium and the Institute for Plant Conservation)

Articles in Peer-reviewed Journals

Anderson, B.C., Olivieri, I., Lourmas, M. and Stewart, B.A. 2004. Comparative population genetic structures and local adaptation of two mutualists. *Evolution*, 58(8): 1730-1747.

Anderson, P.M., Hoffman, M.T. and Holmes, P.M. 2004. The potential of *Cephalophyllum inaequale* (L. Bolus) for the restoration of degraded arid landscapes in Namaqualand. *Restoration Ecology*, 12: 343-351.

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Bond, W.J., Dickinson, K.J.M. and Marks, A.F. 2004. What limits the spread of fire-dependent vegetation? Evidence from geographic variation of serotiny in a New Zealand shrub. *Global Ecology and Biogeography*, 13: 1-13.

Bond, W.J., Lee, W. and Craine, J.M. 2004. Plant structural defences against browsing birds: A legacy of New Zealand's extinct moas. *Oikos*, 104: 500-508.

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- Forsyth, G.G., Richardson, D.M., Brown, P.J. and Van Wilgen, B.W. 2004. A rapid assessment of the invasive status of *Eucalyptus* species in two South African provinces. *South African Journal of Science*, 100: 75-77.
- Foxcroft, L.C., Rouget, M., Richardson, D.M. and Fadyen, S.M. 2004. Reconstructing 50 years of *Opuntia stricta* invasion in the Kruger National Park, South Africa: Environmental determinants and propagule pressure. *Diversity and Distributions*, 10: 427-437.
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- Hyvonen, J., Koskinen, S., Smith Merrill, G.L., Hedderson, T.A. and Stenroos, S. 2004. Phylogeny of the Polytrichales (Bryophyta) based on simultaneous analysis of molecular and morphological data. *Molecular Phylogenetics and Evolution*, 31: 915-928.
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Stegenga, H., Anderson, R.J. and Bolton, J.J. 2004. *Aphanocladia ecorticata* nov. sp. (Rhodophyta, Rhodomelaceae) from the South African south coast. *Botanica Marina*, 47: 167-170.

Stock, W.D., Chuba, D.K. and Verboom, G.A. 2004. Distribution of South African C₃ and C₄ species of Cyperaceae in relation to climate and phylogeny. *Austral Ecology*, 29: 313-319.

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Wright, I.J., Diemer, M., Flexas, J., Garnier, E., Groom, P.K., Gulias, J., Hikosaka, K., Lamont, B.B., Lee, T., Lee, W., Lusk, C., Reich, P.B., Midgley, J.J., Navas, M.L., Niinemets, U., Oleksyn, J., Osada, N., Poorter, H., Poot, P., Prior, L., Pyankov, V.I., Roumet, C., Westoby, M., Thomas, S.C., Tjoelker, M.G., Veneklaas, E.J., Villar, R., Ackerly, D.D., Baruch, Z., Bongers, F., Cavender-Bares, J., Chapin, T. and Cornelissen, J.H.C. 2004. The worldwide leaf economics spectrum. *Nature*, 428: 821.

Yelenik, S.G., Stock, W.D. and Richardson, D.M. 2004. Ecosystem level impacts of invasive *Acacia salignain* the South African Fynbos. *Restoration Ecology*, 12(1): 44-51.

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Chapters in Books

Lawes, M.J., Midgley, J.J. and Chapman, C.A. 2004. South Africa's forests: The ecology and sustainable use of indigenous timber resources. In M.J. Lawes, H.A.C. Eeley, C.M. Shackleton and B.G.S. Geach (Eds.), *Indigenous forests and woodlands in South Africa*: 31-63. Scottsville: University of KwaZulu-Natal Press.

Midgley, J.J. and Anderson, B.C. 2004. Scatterhoarding in Mediterranean shrublands of the SW Cape, South Africa. In P.M. Forget, J.E. Lambert, P.E. Hulme and S.B. vander Wall (Eds.), *Seed fate (Predation, dispersal and seedling establishment)*: 197-204. USA: CABI Publishing.

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A.M.N. Izac (Eds.), *Agroforestry and biodiversity conservation in tropical landscapes*: 371-396. Washington, D.C.: Island Press.

Richardson, D.M., Rouget, M. and Rejmanek, M. 2004. Using natural experiments in the study of alien tree invasions: Opportunities and limitations. In M.S. Gordon and S.M. Bartol (Eds.), *Experimental approaches to conservation biology*: 180-201. Berkeley: University of California Press.

Rundel, P.W. and Richardson, D.M. 2004. Pines. In J. Burley, J. Evans and J.A. Youngquist (Eds.), *Encyclopedia of forest sciences*: 1430-1441. Oxford: Academic Express.

Schroth, G. and Richardson, D.M. 2004. Conclusion: Agroforestry and biodiversity conservation in tropical landscapes. In G. Schroth, G.A.B. de Fonseca, C.A. Harvey, C. Gascon, H.L. Vasconcelos and A.M.N. Izac (Eds.), *Agroforestry and biodiversity conservation in tropical landscapes*: 487-501. Washington D.C.: Island Press.

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Peer-reviewed Published Conference Proceedings

Richardson, F.D., Hahn, B.D. and Hoffman, M.T. 2004. Understanding arid and semi-arid grazing systems: Why both equilibrium and non-equilibrium concepts are inadequate. Proceedings of the International Workshop on Rangelands at Equilibrium and Non-equilibrium held at the VIIth International Rangelands Congress, Durban, 17-19.

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Theses and Dissertations Passed for Higher Degrees

Chase, R.R. 2004. Paleoclimatic Impacts on the Phylogeography of an Afromontane Liverwort: *Jamesoniella colorata* (Lophoziaceae): 1-65. MSc, University of Cape Town.

Chimphango, S.B. 2004. The effects of ultraviolet-B radiation on plant growth, symbiotic function and concentration of metabolites in legumes and an assessment of F1 generation for carryover effects: 1-173. PhD, University of Cape Town.

Codron, J. 2004. An isotope comparison of elephant (*Loxodonta africana*) diets in the Kruger National Park and Welgevonden Game Reserve: 1-165. MSc, University of Cape Town.

Desmet, P.G. 2004. Designing a living landscape for biodiversity conservation in the Knersvlakte Region of the succulent Karoo, South Africa: A systematic conservation planning approach: 1-255. PhD, University of Cape Town.

Hendricks, H.H. 2004. Semi-nomadic pastoralism and the conservation of biodiversity in the Richtersveld National Park, South Africa: 1-217. PhD, University of Cape Town.

Jonas, Z. 2004. Land use and its impact on the Succulent Karoo: 1-102. MSc, University of Cape Town.

Muzila, M. 2004. A synopsis of the genus *Octopoma* N.E. Br. (Ruschioideae) using morphology, 5S NTS and psbA-trnH spacer regions: 1-116. MSc, University of Cape Town.

Pauw, C.A. 2004. Variation in pollination across a human impacted landscape: Ecological causes and evolutionary consequences: 1-165. PhD, University of Cape Town.

Petersen, A. 2004. The vegetation of Paulshoek, Namaqualand: phytosociology and land use impacts: 1-130. MSc, University of Cape Town.

Robertson-Andersson, D.V. 2004. The cultivation of *Ulva Lactuca* (Chlorophyta) in an integrated aquaculture system for the production of Abalone feed and the Bioremediation of aquaculture effluent: 1-254. MSc, University of Cape Town.

Spriggs, A.C. 2004. Symbiotic N₂ fixation in cultivated *Cyclopia* spp. (honeybush): Towards sustainable cultivation in the Western Cape of South Africa: 1-257. PhD, University of Cape Town.