

# SCIENCE COMMUNICATIONS

January 2004-March 2004

Science Division Mission: The provision of up-to-date and scientifically sound information to uphold effective conservation and land management in Western Australia  
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*Science Communications* lists titles of publications, reports etc prepared by Science Division staff. This issue is for the period January to March 2004

If you require a copy of a **submitted** paper please contact the author. For all other titles please contact Lisa Wright at Woodvale.

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## Journal Publications

Blamires, S.J., Guinea, M.L. and Prince, R.I.T. (2003). Influence of nest site selection on predation of flatback sea turtle (*Natator depressus*) eggs by varanid lizards in northern Australia. *Chelonian Conservation and Biology* **4**. pp. 557-563.

Brand, J.E., Robinson, N. and Archibald, R.D. (2003). Establishment and growth of sandalwood (*Santalum spicatum*) in south-western Australia: Acacia host trials. *Australian Forestry* **66**. pp. 294-299.

Burrows, N.D., Algar, D., Robinson, A.D., Sinagra, J., Ward, B. and Liddelow, G. (2003). Controlling introduced predators in the Gibson Desert of Western Australia. *Journal of Arid Environments* **55**. pp. 691-713.

Davis, J.A., McGuire, M., Halse, S.A., Hamilton, D., Horwitz, P., McComb, A.J., Froend, R.H., Lyons, M. and Sim, L. (2003). What happens when you add salt?: predicting impacts of secondary salinisation on shallow aquatic ecosystems using an alternative states model. *Australian Journal of Botany* **51**. pp. 715-724.

Elliott, C. and Byrne, M. (2003). Genetic diversity within and between natural populations of *Eucalyptus occidentalis* (Myrtaceae). *Silvae Genetica* **52**. pp. 269-173.

Elliott, C.P. and Byrne, M. (2004). Phylogenetics and the conservation of rare taxa in the *Eucalyptus angustissima* complex in Western Australia. *Conservation Genetics* **5**. pp. 39-47.

Gunn, R.J.M., Pinder, A.M. and Walker, B.M. (2003). Phreodrilidae (Annelida: Oligochaeta), a family new to Europe. *Irish Naturalists' Journal* **27**. pp. 315-317.

Halse, S.A., Ruprecht, J.K. and Pinder, A.M. (2003). Salinisation and prospects for biodiversity in rivers and wetlands of south-west Western Australia. *Australian Journal of Botany* **51**. pp. 673-688.

McGrath, J.F., Copeland, B. and Dumbrell, I.C. (2003). Magnitude and duration of growth and wood quality responses to phosphorus and nitrogen in thinned *Pinus radiata* in southern Western Australia. *Australian Forestry* **66**. pp. 223-230.

McGrath, J.F., Dumbrell, I.C., Hingston, R.A. and Copeland, B. (2003). Nitrogen and phosphorus increase growth of thinned late-rotation *Pinus radiata* on coastal sands in Western Australia. *Australian Forestry* **66**. pp. 217-222.

McHugh, R., Stephenson, S.L., Mitchell, D.W., and Brims, M.H. (2003). New records of Australian Myxomycota. *New Zealand Journal of Botany* **41**. pp. 487-500.

McKenzie, N.L., Burbidge, A.H. and Rolfe, J.K. (2003). Effect of salinity on small, ground-dwelling animals in the Western Australian wheatbelt. *Australian Journal of Botany* **51**. pp. 725-740.

Rippey, E., Hislop, M.C., and Dodd, J. (2003). Reassessment of the vascular flora of Rottnest Island. *Journal of the Royal Society of Western Australia* **86**. pp. 7-23.

Robinson, R.M., Williams, M.R. and Smith, R.H. (2003). Incidence of *Armillaria* root disease in karri regrowth forest is underestimated by surveys of aboveground symptoms. *Australian Forestry* **66**. pp. 273-278.

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Start, A.N. (2003). Eradication of silver pheasants, *Lophura nycthemera* (L.) from Porongurup National Park, Western Australia. *Western Australian Naturalist* **24**. pp. 111-114.

Warren, K.S., Swan, R.A., Morgan-Ryan, U.M., Friend, J.A. and Elliot, A. (2003). *Cryptosporidium muris* infection in bilbies (*Macrotis lagotis*). *Australian Veterinary Journal* **81**. pp. 739-741.

White, D.A., Battaglia, M., Macfarlane, C., Mummery, D., McGrath, J.F. and Beadle, C.L. (2003). Selecting species for recharge management in Mediterranean south western Australia: some ecophysiological considerations. *Plant and Soil* **257**. pp. 283-293.

Wills, A. and Abbott, I. (2003). Landscape-scale species richness of earthworms in the Porongurup Range, Western Australia: influence of aspect, soil fertility and vegetation type. *Biology and Fertility of Soils* **39**. pp. 94-102.

## Books

Baldwin, R., Hughes, G.R. and Prince, R.I.T. (2003). Loggerhead turtles in the Indian Ocean. In: *Loggerhead Sea Turtles* (eds A.B. Bolten & B.E. Witherington). Smithsonian Books, Washington. pp. 218-232.

Rogers, D., Piersma, T., Lavaleye, M., Pearson, G. and de Goeij, P. (2003). Life along land's edge: wildlife on the shores of Roebuck Bay, Broome. Department of Conservation and Land Management, Western Australia, 162 p.

## Conference/Workshop Papers

Barrett, S. (2003). Monitoring of aerial phosphite applications for the control of *Phytophthora cinnamomi* in the Albany district. In: *Phytophthora in Forests and Natural Ecosystems: 2nd International IUFRO Working Party 7.02.09 Meeting, Albany, W. Australia, 30th Sept-5th Oct, 2001* (eds J. McComb, G. Hardy & I. Tommerup). Centre for Phytophthora Research and Management, Murdoch. pp. 132-137.

Grant, M. and Barrett, S. (2003). The distribution and impact of *Phytophthora cinnamomi* Rands in the south coast region of Western Australia. In: *Phytophthora in Forests and Natural Ecosystems: 2nd International IUFRO Working Party 7.02.09 Meeting, Albany, W. Australia, 30th Sept-5th Oct, 2001* (eds J. McComb, G. Hardy & I. Tommerup). Centre for Phytophthora Research and Management, Murdoch. pp. 34-40.

Keighery, G., Gibson, N., Muir, B. and Keighery, B. (2003). Common and rare limestone communities of the Swan Coastal Plain. In: *Proceedings: Threatened Ecological Communities Symposium, Technology Park, Bentley, Western Australia, 2nd December 2003: Summary Proceedings* Western Australian Threatened Species and Communities Unit, pp. 1-6.

Start, A.N. (2003). Fire management and healthy country in the Kimberley region, Western Australia. In: *Proceedings of the 2nd Biannual Kimberley Fire Forum: held at Brumby Base, El Questro Wilderness Park, East Kimberley, Western Australia, 3-6 May 2001* (ed. J.L. Kohen). Kimberley Specialists, Kununurra. pp. 115-120.

Stukely, M.J.C., McComb, J.A., Colquhoun, I.J. and Bennett, I.J. (2003). Progress in selection and production in jarrah (*Eucalyptus marginata*) resistant to *Phytophthora cinnamomi* for use in rehabilitation plantings. In: *Phytophthora in Forests and Natural Ecosystems: 2nd International IUFRO Working Party 7.02.09 Meeting, Albany, W. Australia, 30th Sept-5th Oct, 2001* (eds J. McComb, G. Hardy & I. Tommerup). pp. 208-211.

## Abstracts

Auckland, C., Shearer, B.L. and Hardy, G.E. St. J. (2003). The dilution of phosphite in rapidly growing plants and how soil and plant phosphate levels interact with phosphite and its ability to induce host-resistant responses when challenged by *Phytophthora cinnamomi* (POSTER ABSTRACT). In: *Phytophthora in Forests and Natural Ecosystems: 2nd International IUFRO Working Party 7.02.09 Meeting, Albany, W. Australia, 30th Sept-5th Oct, 2001* (eds J. McComb, G. Hardy & I. Tommerup). Centre for Phytophthora Research and Management, Murdoch. pp. 244-245.

Barrett, S. (2003). Rare flora threatened by *Phytophthora cinnamomi* in the Albany area, Western Australia (ABSTRACT). In: *Phytophthora in Forests and Natural Ecosystems: 2nd International IUFRO Working Party 7.02.09 Meeting, Albany, W. Australia, 30th Sept-5th Oct, 2001* (eds J. McComb, G. Hardy & I. Tommerup). Centre for Phytophthora Research and Management, Murdoch. p. 245

D'Souza, N.K., Webster, J.L., Tay, F.C.S. and Stukely, M.J.C. (2003). The Vegetation Health Service: a resource for researchers and managers of *Phytophthora* disease (POSTER ABSTRACT). In: *Phytophthora in Forests and Natural Ecosystems: 2nd International IUFRO Working Party 7.02.09 Meeting, Albany, W.*

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- Australia, 30th Sept-5th Oct, 2001 (eds J. McComb, G. Hardy & I. Tommerup). Centre for Phytophthora Research and Management, Murdoch. p. 253
- Hardy, G.E. St. J., Tommerup, I.C., Colquhoun, I.J. and Shearer, B.L. (2003). *Phytophthora* in Australasia and the way forward in disease management (ABSTRACT). In: *Phytophthora in Forests and Natural Ecosystems: 2nd International IUFRO Working Party 7.02.09 Meeting, Albany, W. Australia, 30th Sept-5th Oct, 2001* (eds J. McComb, G. Hardy & I. Tommerup). Centre for Phytophthora Research and Management, Murdoch. p. 259
- Moro, D. (2003). Translocation of captive-bred marsupial dibblers, *Parantechinus apicalis* (Marsupialia: Dasyuridae) to Escape Island, Western Australia (ABSTRACT). *Newsletter of the Australian Mammal Society* **Oct.** pp. 27-28.
- Shearer, B.L., Crane, C.E. and Fairman, R.G. (2003). Phosphite reduces the rate of spread of *Phytophthora cinnamomi* in *Banksia* woodland, even after fire (POSTER ABSTRACT). In: *Phytophthora in Forests and Natural Ecosystems: 2nd International IUFRO Working Party 7.02.09 Meeting, Albany, W. Australia, 30th Sept-5th Oct, 2001* (eds J. McComb, G. Hardy & I. Tommerup). Centre for Phytophthora Research and Management, Murdoch. p. 270
- Shearer, B.L. and Fairman, R.G. (2003). Foliar application of phosphite delays and reduces the rate of mortality of three *Banksia* species in communities infested with *Phytophthora cinnamomi* (POSTER ABSTRACT). In: *Phytophthora in Forests and Natural Ecosystems: 2nd International IUFRO Working Party 7.02.09 Meeting, Albany, W. Australia, 30th Sept-5th Oct, 2001* (eds J. McComb, G. Hardy & I. Tommerup). Centre for Phytophthora Research and Management, Murdoch. p. 269
- Shearer, B.L. and Fairman, R.G. (2003). Phosphite inhibits lesion development of *Phytophthora cinnamomi* for at least four years following trunk injection of *Banksia* species and *Eucalyptus marginata* (POSTER ABSTRACT). In: *Phytophthora in Forests and Natural Ecosystems: 2nd International IUFRO Working Party 7.02.09 Meeting, Albany, W. Australia, 30th Sept-5th Oct, 2001* (eds J. McComb, G. Hardy & I. Tommerup). Centre for Phytophthora Research and Management, Murdoch. p. 269
- Smith, J. and Morris, K. (2003). Animal ethics in a conservation agency (ABSTRACT). *Newsletter of the Australian Mammal Society* **Oct.** pp. 33-34.

## Reports

- Burbidge, A.A., Drew, M., Pearson, D. and Kendrick, P. (2003). Mammal monitoring, Barrow Island Nature Reserve, October 2003. Department of Conservation and Land Management, Western Australia, 32 p.
- De Goeij, P., Lavaleye, M., Pearson, G.B. and Piersma, T. (2003). Seasonal changes in the macro-zoobenthos of a tropical mudflat: report on MONROEB, Monitoring Roebuck Bay Benthos, 1996-2001. Royal Netherlands Institute for Sea Research, Texel. 49 p.
- Groves, R.H., Hosking, J.R., Batianoff, G.N., Cooke, D.A., Cowie, I.D., Johnson, R.W., Keighery, G.J., Lepschi, B.J., Mitchell, A.A., Moerkerk, M., Randall, R.P., Rozefelds, A.C., Walsh, N.G. and Waterhouse, B.M. (2003). Weed categories for natural and agricultural ecosystem management. Bureau of Rural Sciences, Adelaide. 194 p.
- Hamilton, N. and Algar, D. (2003). Assessment of feral cat abundance and control options at Plutonic Gold Mine: a report to Barrick Gold of Australia Limited. Department of Conservation and Land Management, Western Australia, 13 p.
- Keighery, B.J., Keighery, G.J. and Longman, V. (2003). Vegetation and flora of Sappers and Cowalla Road between Nilgen Nature Reserve and the Moore River: a report for the Wildflower Society of Western Australia (Inc.) and WA Landskills Inc.. Wildflower Society of Western Australia, Perth. 41 p.
- Landsberg, J., Smyth, A., Ferrier, S., Hopkins, A. and Richardson, J. (2003). Appendix F: The workshop example of an operational framework for guiding the design process of regional biodiversity monitoring by group 1: guiding principles for an operational framework for regional monitoring of rangeland biodiversity. In: *Biodiversity Monitoring in the Rangelands: a Way Forward. Volume 1, Final Report to Environment Australia on an Expert Technical Workshop held from 29 October to 1 November 2002 in Alice Springs by the Centre for Arid Zone Research, CSIRO Sustainable Ecosystems, Alice Springs, Northern Territory* (eds A. Smyth, C. James & G. Whiteman). Environment Australia, Canberra. pp. 41-48.
- Pearson, G., Lavaleye, M., de Goeij, P., Piersma, T., Honkoop, P., Rogers, D., Hickey, R. and Slack-Smith, S. (2003). Life on land's edge: birds of Roebuck Bay, Broome, 2002. *Department of Conservation and Land Management, Western Australia, Landscape Expeditions* **48.** 51 p.

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Pinder, A. (2004). Report on Dec 2002 sampling on Gngara Mound springs. Department of Conservation and Land Management, Western Australia, 5 p.

Trobeck, M. and Schott, D. (2003). Meteor observations with an all sky camera. Perth Observatory, 42 p.

#### **Popular (Landscape, Newsletters, Letters, etc.)**

Alcroft, J. (2003). Vollie news: newsletter of the Perth Observatory Volunteers Group Inc., May 2003. Perth Observatory, 8 p.

Burbidge, A. and Mather, S. (2003). Western Australian bird notes: quarterly newsletter of Birds Australia Western Australia Inc. - No. 105, March 2003. pp. 1-36.

Burbidge, A. and Mather, S. (2003). Western Australian bird notes: quarterly newsletter of Birds Australia Western Australia Inc. - No. 106, June 2003. pp. 1-36.

Burbidge, A. and Mather, S. (2003). Western Australian bird notes: quarterly newsletter of Birds Australia Western Australia Inc. - No. 107, September 2003. pp. 1-44.

Burbidge, A. and Mather, S. (2003). Western Australian bird notes: quarterly newsletter of Birds Australia Western Australia Inc. - No. 108, December 2003. pp. 1-36.

Burrows, N. (2003). Restoring the red centre. *Landscape* **19(2)**. pp. 40-46.

Chapman, A. and Richardson, B. (2003). New version of FloraBase released. *Australian Systematic Botany Society Newsletter* **115**. p. 14

Hanold, D., Stukely, M. and Randles, J.W. (2003). Mundulla yellows: a new tree-dieback threat. *Agroforestry News* **12(1)**. pp. 10-11.

Keighery, G. (2003). Coppercups: the genus *Pileanthus* (Myrtaceae). *Australian Plants* **22**. pp. 153-154, 184-185.

Keighery, G. (2003). Pollination ecology. *Australian Association of Bush Regenerators (WA) Inc. Newsletter* **11(4)**. pp. 1-2.

Keighery, G. (2004). Rediscovery of *Cymbonotus* (Asteraceae) in Western Australia. *Wildflower Society of Western Australia Newsletter* **42(1)**. pp. 25-26.

Pearson, D. (2003). Mulgaras and mining. *Landscape* **19(2)**. pp. 26-31.

Rogers, D., Piersma, T., Lavaleye, M., Pearson, G. and de Goeij, P. (2003). Life along land's edge. *Landscape* **19(2)**. pp. 32-39.

Smith, V. (2003). Vollie news: newsletter of the Perth Observatory Volunteers Group Inc., April 2003. Perth Observatory, 6 p.

Smith, V. (2003). Vollie news: newsletter of the Perth Observatory Volunteers Group Inc., March 2003. Perth Observatory, 9 p.

Start, A.N. (2004). Western Shield: reviewed. *Western Wildlife: Newsletter of the Land for Wildlife Scheme* **8(1)**. pp. 16-17.

Williams, A. (2004). Instructions for setting butterflies. *Newsletter of the Western Australian Insect Study Society* **Feb**. pp. 4-6.

#### **Submitted**

Barrett, S. and Cochrane, A. Seed and seedling ecology of three rare endemics from Western Australia: important factors in the management of threatened species (ABSTRACT). In: *Abstracts: Seed Ecology 2003*

Burbidge, A.A. and Fuller, P.J. Numbers of non-burrowing seabirds of the Houtman Abrolhos : 1991-1993 and 1999. *Corella*

Cochrane, A., Friend, J.A. and Hill, S. Seed consumption by small native ground foraging mammals at Two Peoples Bay (POSTER ABSTRACT). In: *Abstracts: Seed Ecology 2003*

Keighery, G. Balaustion (Myrtaceae): the native pomegranates. *Australian Plants*

Keighery, G. and Longman, V. The naturalized vascular plants of Western Australia. I, checklist, environmental weeds and distribution in IBRA regions. *Plant Protection Quarterly*

McCaw, L., Hamilton, T. and Rumley, C. (2004). Application of fire history records to contemporary management issues in south-west forests (ABSTRACT). In: *Australian Forest History Society Conference*

Patrick, S. and Crawford, A. Awash in colour: painting a path through the Murchison, Western Australia, Aug 28th-Sept 6th, 2003. *Department of Conservation and Land Management, Western Australia, Landscape Expeditions*

Patrick, S.J. and Maslin, B.R. The beginnings of forest botany in Western Australia: early botanical documentation of the forests in the Augusta to Busselton area with particular emphasis on the work of Georgiana Molloy. In: *A Forest Consciousness: 6th National Conference of the Australian Forest History Society*

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Robinson, R. Surveys for macrofungi: plots and transects. *Fungimap Newsletter*

Robinson, R.M. and Spencer, M. Coppice treatment gives hope to rare and endangered mallee eucalypt in the south-west of Western Australia. *Journal of the Royal Society of Western Australia*

Stukely, M. The role of pathogens in the decline of tuart. In: *Proceedings of the Tuart Science Workshop, 24th July, 2002*

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