SCIENCE COMMUNICATIONS

April 2003-June 2003

Science Division Mission: The provision of up-to-date and scientifically sound information to uphold effective conservation and land management in Western Australia http://calmweb.calm.wa.gov.au/drb/science/index.html

Science Communications lists titles of publications, reports etc prepared by Science Division staff. This issue is for the period April to June 2003.

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

Neil Burrows Director

Journal Publications

- Abbott, I. and Wills, A. (2002). Distribution of the native earthworm fauna of the Perth metropolitan sector of the Swan Coastal Plain. *Pacific Conservation Biology* **8.** pp. 196-210.
- Alacs, E., Alpus, D., de Tores, P.J., Dillon, M. and Spencer, P.B.S. (2003). Identifying the presence of quokkas (*Setonix brachyurus*) and other macropods using cytochrome *b* analysis from faeces. *Wildlife Research* **30.** pp. 41-47.
- Barrett, S.R., Shearer, B.L. and Hardy, G.E. St. J. (2003). The efficacy of phosphite applied after inoculation on the colonisation of *Banksia brownii* stems with *Phytophthora cinnamomi*. *Australasian Plant Pathology* **32.** pp. 1-7.
- Beeston, G.R., Hopkins, A.J.M. and Shepherd, D.P. (2002). Land-use and vegetation in Western Australia: National Land and Water Resources Audit report. *Resource Management Technical Report* **250.** pp. 1-100.
- Byrne, M. and Broadhurst, L. (2003). Genetic diversity and the utilization of *Acacia* species complexes in agroforestry in Western Australia. *Australian Systematic Botany* **16.** pp. 49-55.
- Gioia, P. (2002). Database ownership and access issues: a discussion paper. *Journal of the Royal Society of Western Australia* **85.** pp. 147-150.
- Maslin, B.R., Miller, J.T. and Siegler, D.S. (2003). Overview of the generic status of *Acacia* (Leguminosae: Mimosoideae). *Australian Journal of Botany* **16.** pp. 1-8.
- McKenzie, N.L., Start, A.N. and Bullen, R.D. (2002). Foraging ecology and organisation of a desert bat fauna. *Australian Journal of Zoology* **50.** pp. 529-548.

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Moro, D. (2003). Translocation of captive-bred marsupial dibblers, *Parantechinus apicalis* (Marsupialia: Dasyuridae) to Escape Island, Western Australia. *Biological Conservation* **111.** pp. 305-315.

Books

- Abbott, I. (2003). Aboriginal fire regimes in southwest Western Australia: evidence from historical documents. *In: Fire in Ecosystems of South-West Western Australia: Impacts and Management* (eds I. Abbott & N. Burrows). Backhuys, Leiden. pp. 119-146.
- Abbott, I. and Burrows, N. (2003). Fire in ecosystems of south-west Western Australia: impacts and management. Backhuys, Leiden. 466 p.
- Abbott, I. and Burrows, N. (2003). Foreword: the genesis of this book. *In: Fire in Ecosystems of South-West Western Australia: Impacts and Management* Backhuys, Leiden. pp. vii-xiii.
- Burbidge, A.H. (2003). Birds and fire in the Mediterranean climate of south-west Western Australia. *In: Fire in Ecosystems of South-West Western Australia: Impacts and Management* Backhuys, Leiden. pp. 321-347.
- Burrows, N. and Abbott, I. (2003). Fire in southwest Western Australia: synthesis of current knowledge, management implications and new research directions. *In: Fire in Ecosystems of South-West Western Australia: Impacts and Management* Backhuys, Leiden. pp. 437-452.
- Burrows, N. and Wardell-Johnston, G. (2003). Fire and plant interactions in forested ecosystems of south-west Western Australia. *In: Fire in Ecosystems of South-West Western Australia: Impacts and Management* Backhuys, Leiden. pp. 225-268.

(Continued on page 2)

(Continued from page 1)

- Friend, G. and Wayne, A. (2003). Relationships between mammals and fire in south-west Western Australian ecosystems: what we know and what we need to know. *In: Fire in Ecosystems of South-West Western Australia: Impacts and Management* Backhuys, Leiden. pp. 363-380.
- Friend, J.A. and Thomas, N.D. (2003). Conservation of the numbat (*Myrmecobius fasciatus*). *In: Predators With Pouches: the Biology of Carnivorous Marsupials* CSIRO, Collingwood. pp. 452-463.
- Jones, M.E., Oakwood, M., Belcher, C.A., Morris, K., Murray, A.J., Woolley, P.A., Firestone, K.B., Johnson, B. and Burnett, S. (2003). Carnivore concerns: problems, issues and solutions for conserving Australasia's marsupial carnivores. *In: Predators With Pouches: the Biology of Carnivorous Marsupials* (eds M. Jones, C. Dickman & M. Archer). CSIRO, Collingwood. pp. 422-434.
- Lamont, B.B., Ward, D.J., Eldridge, J., Korczynskyj, D., Colangelo, W.I., Fordham, C., Clements, E. and Wittkuhn, R. (2003). Believing the balga: a new method for gauging the fire history of vegetation using grasstrees. *In: Fire in Ecosystems of South-West Western Australia: Impacts and Management* (eds I. Abbott & N. Burrows). Backhuys, Leiden. pp. 147-169.
- McCaw, L., Cheney, P. and Sneeuwjagt, R. (2003). Development of a scientific understanding of fire behaviour and use in south-west Western Australia. *In: Fire in Ecosystems of South-West Western Australia: Impacts and Management* Backhuys, Leiden. pp. 171-187.
- McCaw, L. and Hanstrum, B. (2003). Fire environment of Mediterranean south-west Western Australia. *In: Fire in Ecosystems of South-West Western Australia: Impacts and Management* Backhuys, Leiden. pp. 87-106.
- Morris, K., Johnson, B., Orell, P., Gaikhorst, G., Wayne, A. and Moro, D. (2003). Recovery of the threatened chuditch (*Dasyurus geoffroii*): a case study. *In: Predators With Pouches: the Biology of Carnivorous Marsupials* CSIRO, Collingwood. pp. 435-451.
- Robinson, R. (2003). Fungi of the south-west forests. Department of Conservation and Land Management, Western Australia, Bush Books 72 p.

- Robinson, R.M. and Bougher, N.L. (2003). The response of fungi to fire in jarrah (*Eucalyptus marginata*) and karri (*Eucalyptus diversicolor*) forests of south-west Western Australia. *In: Fire in Ecosystems of South-West Western Australia: Impacts and Management* Backhuys, Leiden. pp. 269-289.
- Van Heurck, P. and Abbott, I. (2003). Fire and terrestrial invertebrates in south-west Western Australia. *In: Fire in Ecosystems of South-West Western Australia: Impacts and Management* (eds I. Abbott & N. Burrows). Backhuys, Leiden. pp. 291-319.
- Yates, C.J., Abbott, I., Hopper, S.D. and Coates, D.J. (2003). Fire as a determinant of rarity in the south-west Western Australian global biodiversity hotspot. *In: Fire in Ecosystems of South-West Western Australia: Impacts and Management* Backhuys, Leiden. pp. 395-420.

Conference/Workshop Papers

- Penney, N., Dumbrell, I. and Pritchard, D. (2003). Biosolids in Western Australia: wanted not wasted. *In: Proceedings: ORBIT 2003 Conference: Biological Processing of Organics: Advances for a Sustainable Society: Murdoch University, Perth, Western Australia, 29th April-5th May 2003* Murdoch University, Perth. pp. 1-10.
- Porter, W.M., Bartle, J. and Cooper, D. (2002). Fitting perennials into an annual world. *In:*Dealing With Salinity in Wheatbelt Valleys:
 Processes, Prospects and Practical Options:
 Papers, Proceedings and Outcomes of the
 Field Tour/Conference/Workshop, July 30August 01, 2001, Merredin, Western Australia
 Water & Rivers Commission, Perth. pp. 1-17.

Abstracts

- Keighery, B.J. and Keighery, G.J. (2003). Vernal pools of southern Western Australia (ABSTRACT). In: Monocots III: Abstracts: the Third International Conference on the Comparative Biology of the Monocotyledons & the Fourth International Symposium on Grass Systematics and Evolution: 31 March-4 April, 2003, Ontario, California Rancho Santa Ana Botanic Garden, Claremont. p. 45
- Keighery, G.J. and Keighery, B.J. (2003).
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- Abbott, I. (2002). Historical records of Noongar fires, 1658-1888: a compendium. Department of Conservation and Land Management, Western Australia, 15 p.
- Science Division, Department of Conservation and Land Management, Western Australia (2003). Business plan, July 2002-June 2004. Department of Conservation and Land Management, Western Australia, 25 p.
- Cochrane, A. and Barrett, S. (2003). Seedling survival, soil seed bank status and disturbance response of the critically endangered *Grevillea maxwellii* McGill (Proteaceae): final report to Bankwest Landscope Visa Conservation Card Trust Fund, February 2003. Department of Conservation and Land Management, Western Australia, 10 p.
- Dumbrell, I. (2003). Application of biosolids to pine plantations of the Swan Coastal Plain: final report of a three year study to the Water Corporation of Western Australia. Department of Conservation and Land Management, Western Australia, 30 p.
- Harding, M.G., Lamont, B.B. and Yates, C.J. (2003). Conservation biology of the rare and critically endangered *Synaphea quartzitica* and common *S. spinulosa*. Curtin University of Technology, Department of Environmental Biology, Perth. 110 p.
- Keating, C.D.M, Volunteers of the Bushland Plants Survey and Keighery, G.J. (2002). The vegetation and flora of Greg & Tanya Burrows property Hawkrise and Maureen & Keith Jones' property Bullswamp in the Moresby Range, Shire of Chapman Valley. Wildflower Society of Western Australia, Nedlands. 95 p.
- Keighery, G. (2003). Vegetation and vascular flora of Burroloo Well Nature Reserve, Chittering Shire. Department of Conservation and Land Management, Western Australia, 18 p.
- Mann, J., Jokovich, S. and Williamson, K. (2002). Woodvale Nature Reserve fauna survey 2002. Department of Conservation and Land Management, Western Australia, 20 p.
- Massam, M., Kirkpatrick, W., Mawson, P., Press, N., Bennell, T. and Hamilton, N. (2002). Importing and keeping introduced mammals, birds, reptiles and amphibians in Western Australia, October 2002. http://www.agric.wa.gov.au/programs/app/dec_an/index.htm. Department of Agriculture, Western Australia, 23 p.

- Onus, M.L., Algar, D., Brazell, R.I., Withnell, G.B. and Hamilton, N. (2003). Assessment of feral cat status on Garden Island: a report to the Department of Defence (HMAS Stirling). Department of Conservation and Land Management, Western Australia, 11 p.
- Perth Observatory (2003). Business plan, July 2002-June 2004. Department of Conservation and Land Management, Western Australia, 13 p.
- Perth Observatory (2003). Operations plan, July 2002-June 2003. Department of Conservation and Land Management, Western Australia, 10 p.
- Science Division, Department of Conservation and Land Management, Western Australia (2002). ForestCheck: monitoring biodiversity in south-west forests: operating plan for spring 2002 and autumn 2003. Department of Conservation and Land Management, Western Australia, 72 p.
- Science Division, Department of Conservation and Land Management, Western Australia (2003). Operations plan, July 2002-June 2003. Department of Conservation and Land Management, Western Australia, 66 p.
- Thomas, N.D. and Algar, D. (2002). Assessment of feral cat abundance and control options at Two Peoples Bay Nature Reserve. Department of Conservation and Land Management, Western Australia, 5 p.
- Ward, D. and van Didden, G. (2003). A brief fire history of Monadnocks Conservation Park, Western Australia: based on grasstree stem data: a report to the Department of Conservation and Land Management. Department of Conservation and Land Management, Western Australia, 18 p.

Popular (Landscope, Newsletters, Letters, etc.)

- Burbidge, A.H. (2003). Western bristlebirds at Nuyts. South Coast Threatened Birds News 7. p. 3
- Cranfield, R.J. (2003). Mystic lichens. Western Wildlife: Newsletter of the Land for Wildlife Scheme **7(2)**. pp. 4-5.
- Friend, T. (2003). Dibbler update. *Malleefowl Matter* **30.** p. 1
- Halse, S. (2002). Diversity of Ostracoda (Crustacea) in inland waters of Western Australia. Verhandlungen der Internationalen Vereinigung für Theoretische und Angewandte Limnologie **28.** pp. 914-918.

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- Maslin, B. (2003). Proposed name changes in Acacia. Native Plants: Newsletter of the Australian Plants Society, New South Wales 38 (1). pp. 12-18.

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- Abbott, I. Aborigines, settlers and native animals: outline of a zoological history of south-west Western Australia. *Journal of the Royal Historical Society of Western Australia*
- Byrne, M. Recognition of *Eucalyptus quaerenda* (Myrtaceae) at specific rank. *Nuytsia*
- Cochrane, A. and Monks, L. The role of seedbanks in the long-term conservation of threatened plant species: a Western Australian perspective. *In: The Australian Seed Book*
- D'Souza, N.K., Colquhoun, I.J., Shearer, B.L. and Hardy, G.E. St. The potential of five Western Australia native *Acacia* species for biological control of *Phytophthora cinnamomi*. *Australasian Plant Pathology*
- De Tores, P.J., Hayward, M.W. and Rosier, S.M. The western ringtail possum, *Pseudocheirus occidentalis*, and the quokka, *Setonix brachyurus*: case studies for the February 2003 review of Western Shield. *Conservation Science Western Australia*
- Elliott, C. and Byrne, M. Genetic diversity within and between natural populations of *Eucalyptus occidentalis* (Myrtaceae). *Silvae Genetica*
- Gibson, N., Keighery, G. and Lane, J. 5 year monitoring of the wetlands of the Muir-Unicup system, south west Australia. *Journal of the Royal Society of Western Australia*
- Hobbs, R.J. and Yates, C.J. Impacts of ecosystem fragmentation on plant populations: generalizing the idiosyncratic. *Australian Journal of Botany*
- Johnson, B. and Costello, V. Heath mouse eludes searchers. *Landscope*
- Keighery, G. A new species of *Logania* (Loganiaceae) form Western Australia. *Nuytsia*
- Ruthrof, K.X., Loneragan, W.A. and Yates, C.J. Comparative population dynamics of an invasive eucalypt (*Eucalyptus cladocalyx*) and two endemic eucalypts (*E. gomphocephala* and *E. marginata*) in an urban bushland in

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- Smith, J. and Morris, K. Animal ethics in a conservation agency. *In: Proceedings of the Australian Mammal Society Conference*
- Williams, M.R. Effect of fire on day-flying Lepidoptera: progress report.
- Wills, A. and Burbidge, T. Defoliation of jarrah (Donn. ex Smith) ground coppice: impact of 15 consecutive annual complete defoliations. *Australian Forestry*
- Yates, C. and Ladd, P. The relative importance of reproductive biology and establishment ecology for persistence of a rare shrub in a fragmented landscape. *Conservation Biology*

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