

SCIENCE COMMUNICATIONS

July 2004-September 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 July to September 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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Hampton, J.O., Spencer, P.B.S., Alpers, D.L., Twigg, L.E., Woolnough, A.P., Doust, J., Higgs, T. and Pluske, J. (2004). Molecular techniques, wildlife management and the importance of genetic population structure and dispersal: a case study with feral pigs. *Journal of Applied Ecology* **41**. pp. 735-743.

Harper, R.J. and Gilkes, R.J. (2004). Aeolian influences on the soils and landforms of the southern Yilgarn Craton of semi-arid, southwestern Australia. *Geomorphology* **59**. pp. 215-235.

Knott, B., Bruce, L., Lane, J., Konishi, Y. and Burke, C. (2003). Is the salinity of Lake Clifton (Yalgorup National Park) increasing?. *Journal of the Royal Society of Western Australia* **86**. pp. 119-122.

Mills, H.R. and Spencer, P.B.S. (2003). Polymorphic microsatellites identified in an endangered dasyurid marsupial, the dibbler (*Parantechinus apicalis*). *Molecular Ecology Notes* **3**. pp. 218-220.

Moro, D. and Spencer, P.B.S. (2003). Microsatellite primers for the western pebble-mound mouse (*Pseudomys chapmani*) that show cross amplification for other species of Australian rodent. *Molecular Ecology Notes* **3**. pp. 259-261.

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Orchard, A.E. and Maslin, B.R. (2003). Proposal to conserve the name *Acacia* Mill. (Leguminosae: Mimosoideae) with a new type.

Journal Publications

Al-Turki, T.A., Swarupanandan, K. and Wilson, P.G. (2003). Primary vasculature in Chenopodiaceae: a re-interpretation and implications for systematics and evolution. *Botanical Journal of the Linnean Society* **143**. pp. 337-374.

Byrne, M. and Hines, B. (2004). Phylogeographical analysis of cpDNA variation in *Eucalyptus loxophleba* (Myrtaceae). *Australian Journal of Botany* **52**. pp. 459-470.

Farr, J.D., Swain, D. and Metcalf, F. (2004). Spatial analysis of an outbreak of *Uraba lugens* (Lepidoptera: Noctuidae) in the southwest of Western Australia: does logging, vegetation type or fire influence outbreaks?. *Australian Forestry* **67**. pp. 101-113.

Gongora, J., Fleming, P., Spencer, P.B.S., Mason, R., Garkavenko, O., Meyer, J.-N., Droegemueller, C., Lee, J.H. and Moran, C. (2004). Phylogenetic relationships of Australian and New Zealand feral pigs assessed by mitochondrial control region sequence and nuclear GPIP genotype. *Molecular Phylogenetics and Evolution* **33**. pp. 339-348.

Halse, S.A. and McRae, J.M. (2004). New genera and species of giant ostracods (Crustacea: Cyprididae) from Australia. *Hydrobiologia* **524**. pp. 1-52.

Hampton, J., Pluske, J.R. and Spencer, P.B.S. (2004). A preliminary genetic study of the social biology of feral pigs in south-western Australia and the implications for management. *Wildlife Research* **31**. pp. 375-381.

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Pringle, H. and Tinley, K. (2003). Are we overlooking critical geomorphic determinants of landscape change in Australian rangelands?. *Ecological Management and Restoration* **4**. pp. 180-186.

Robinson, R.M., Jensen, D.G. and Morrison, D.J. (2004). Necrophylactic periderm formation in the roots of western larch and Douglas-fir trees infected with *Armillaria ostoyae*. I, the response to abiotic wounding in non-infected roots. *Forest Pathology* **34**. pp. 105-118.

Robinson, R.M., Morrison, D.J. and Jensen, D.G. (2004). Necrophylactic periderm formation in the roots of western larch and Douglas-fir trees infected with *Armillaria ostoyae*. II, the response to the pathogen. *Forest Pathology* **34**. pp. 119-129.

Sage, L.W. and Pigott, J.P. (2004). Conservation status of *Goodenia* (Goodeniaceae) in Western Australia, including a review of threatened, rare and poorly known species. *Journal of the Royal Society of Western Australia* **86**. pp. 123-132.

Spencer, P.B.S., Fletcher, T.P. and Woolley, P.A. (2003). Microsatellite markers from the Julia Creek dunnart, *Sminthopsis douglasi* (Marsupialia: Dasyuridae). *Molecular Ecology Notes* **3**. pp. 570-571.

Stride, A. and Keighery, G.J. (2003). A taxonomic review of the genus *Hypocalymma* (Myrtaceae). *Nordic Journal of Botany* **22**. pp. 535-571.

Wheeler, M.A., Byrne, M. and McComb, J.A. (2003). Little genetic differentiation within the dominant forest tree, *Eucalyptus marginata* (Myrtaceae) of south-western Australia. *Silvae Genetica* **52**. pp. 254-259.

Yates, C.J. and Ladd, P.G. (2004). Breeding system, pollination and demography in the rare granite endemic shrub, *Verticordia staminosa* ssp. *staminosa* in south-west Western Australia. *Austral Ecology* **29**. pp. 189-200.

Books

Vallee, L., Hogbin, T., Monks, L., Makinson, B., Matthes, M. and Rossetto, M. (2004). Guidelines for the translocation of threatened plants in Australia. - 2nd ed.. Australian Network for Plant Conservation, Canberra. 80 p.

Conference/Workshop Papers

Bougher, N. (2004). PUBF fungi kit for Fungi Workshop, Talbot Road Bushland, July 11th 2004. Department of Conservation and Land Management, Western Australia, 17 p.

Prince, R.I.T. (2003). Western Australian Marine Turtle Project. In: *Ningaloo Marine Turtle Conference Exmouth: 13th September 2003, Recreation Centre, Exmouth: Proceedings and Presentations by Speakers* (ed. R. Carter). WWF, Sydney. pp. 6-7.

Pringle, H.J.R. and Hopkins, A.J.M. (2004). Biodiversity monitoring or biodiversity management systems : which is the cart and which is the horse?. In: *Conference Papers: Australian Rangeland Society 13th Biennial Conference, Living in the Outback: Alice Springs, Northern Territory, 5-8 July 2004* (eds G. Bastin, D. Walsh and S. Nicholson). Australian Rangeland Society, Perth. pp. 195-200.

Richardson, J. and Pringle, H. (2004). Deleterious effects of grazing on the biodiversity of breakaway footslope thickets. In: *Conference Papers: Australian Rangeland Society 13th Biennial Conference, Living in the Outback: Alice Springs, Northern Territory, 5-8 July 2004* (eds G. Bastin, D. Walsh and S. Nicholson). Australian Rangeland Society, Perth. pp. 349-350.

Shiel, R.J., Halse, S.A. and Powling, I.J. (2003). Threats to wetlands and potential indicators for monitoring. In: *Biodiversity Monitoring in the Rangelands: a Way Forward. Volume 1* (eds A. Smyth, C. James & G. Whiteman). Centre for Arid Research, Alice Springs. pp. 1-7.

Reports

Burrows, N. and Abbott, I. (2004). Critique of a paper submitted to the Environmental Protection Authority (EPA) of Western Australia entitled Fire regimes and biodiversity conservation a brief review of scientific literature with particular emphasis on southwest Australian studies by Grant Wells, Stephen D. Hopper and Kingsley W. Dixon. Department of Conservation and Land Management, Western Australia, 8 p.

Burrows, N.D. and Liddel, G. (2004). Adaptive fire management: interim guidelines for forest populations of quokka (*Setonix brachyurus*). Department of Conservation and Land Management, Western Australia, 6 p.

Clarke, A.G. and Lane, J.A.K. (2003). A waterbird census of selected wetlands along the coastal margins of the Esperance District, Feb.-Mar. 2003: report. Department of Conservation and Land Management, Western Australia, 38 p.

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Australia, 5 p.

Meyer, C., Beer, T., Müller, J., Gillett, R., Weeks, I., Powell, J., Tolhurst, K., McCaw, L., Cook, G., Marney, D. and Symons, R. (2004). Dioxin emissions from bushfires in Australia. Department of Environment and Heritage, Australia, Canberra. National Dioxins Program technical report 1. 179 p.

Robinson, R., Scott, P., Williams, K. and Hardy, G. (2004). Identification of the causal organism associated with stem canker diseases in the rare and endangered Meelup mallee (*Eucalyptus phylacis*): final project report, July 2004. Department of Conservation and Land Management, Western Australia, 5 p.

Science Division, Department of Conservation and Land Management, Western Australia (2004). Annual research activity report, July 2003-June 2004. Department of Conservation and Land Management, Western Australia, 148 p.

Stukely, M., Webster, J. and Ciampini, J. (2004). Vegetation Health Service: annual report, 2003-2004. Department of Conservation and Land Management, Western Australia, 8 p.

Wills, A. (2004). Crown decline in wandoo: update for 2004: observations from Wundabiniring Brook, 1999-2004. Department of Conservation and Land Management, Western Australia, 15 p.

Popular (Landscape, Newsletters, Letters, etc.)

Barrett, B. (2004). The first step for a ground dwelling parrot. *Western Australian Bird Notes* 111. p. 9

Burbidge, A.H. (2004). Corvids near Carnarvon. *Western Australian Bird Notes* 111. pp. 17-18.

Burbidge, A. and Mather, S. (2004). Western Australian bird notes: quarterly newsletter of Birds Australia Western Australia Inc. - No. 111, September 2004. 36 p.

Hart, R. and Bougher, N. (2004). Perth Urban Bushland Fungi Project. *Western Wildlife: Newsletter of the Land for Wildlife Scheme* 8 (3). pp. 6-7.

Maslin, B.R. (2004). Response to Walker and Simpson's views on the ICBN Proposal 1584 by Orchard and Maslin to conserve the name *Acacia* with the conserved type. *Australian Systematic Botany Society Newsletter* 118. pp. 15-19.

Orchard, T. and Maslin, B. (2004). Australian *Acacia* to (mostly) remain *Acacia*. *Australian Systematic Botany Society Newsletter* 119. pp.

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Pearson, D., Hopper, S., Cochrane, A., Comer, S. and Danks, A. (2004). Fire in the arc. *Landscape* 20(1). pp. 10-17.

Perth Urban Bushland Fungi Project (2004). Common fungi of the Perth region [poster]. Department of Conservation and Land Management, Western Australia, 1 poster

Rooney, J. (2004). Exmouth firearms training course. *Conservation News* Sep. p. 6

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Abbott, I. Appendix 2: Animals. *Letters, Reports and Journals of Exploration and Discovery in Western Australia. Volume 1, December 1826-December 1835* Hesperian Press, Perth.

Coates, D.J., Byrne, M., MacDonald, B., Hankinson, M. and Ward, J. Genetic structure in the priority one species *Genus* sp. *Yalgoo*.

Cochrane, J.A. and Yates, C.J. Conservation biology of a critically endangered shrub *Cyphanthera odgersii* subsp. *occidentalis* (Solanaceae). In: *5th National Native Seed Biology Workshop*

Cranfield, R. Strange parasite. *Western Wildlife: Newsletter of the Land for Wildlife Scheme*

Gould, J.S. and McCaw, L. Risk and behaviour of fires in hardwood plantations. In: *11th Annual AFAC/Inaugural Bushfire CRC Conference*

Gould, J.S., McCaw, W.L. and Cheney, N.P. Project Vesta : findings, extension and validation for south-eastern Australian eucalypt forests. In: *Bushfire 2004 Conference Proceedings*

Guevara, Chagne, Almeida, Byrne, Collada, Faure, Harvengt, Jeandroz, Orazio, Plomion, Ramboer, Rocheta, Sebastianai, Soto, Vendramin and Corvera Isolation and characterization of nuclear microsatellite loci in *Pinus pinaster* Ait.. *Molecular Ecology Notes*

Halse, S. Report on freshwater protected areas in Western Australia (ABSTRACT). In: *Conference Abstracts of IRN/WWF Conference on Freshwater Protected Areas, Sydney University, 27-28 Sept*

Halse, S. What changes in biodiversity has salinisation caused in south-west Western Australian lakes (ABSTRACT). In: *Conference Abstracts of Limpacs (Human Impacts on Lake Ecosystems) Conference*

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

Meyer, C.P., Mueller, J.F., Beer, T.X., Tolhurst, K., McCaw, L., Cook, G., Ivory, A. and Mobbs, C. Dioxin emissions from bushfires in Australia (ABSTRACT). *In: 17th International Clean Air and Environment Conference, Hobart, 2005*

O'Hara, A.J., Ducki, A., Warren, K.S., Swan, R.S., Sims, C., Hill, S. and Friend, J.A. Cutaneous papillomatosis and carcinomatosis in the highly endangered western barred bandicoot (*Perameles bougainville*) (ABSTRACT).

Patrick, S.J. Early forest botany in Western Australia: early with emphasis on the work of Georgiana Molloy. *In: A Forest Consciousness: 6th National Conference of the Australian Forest History Society*

Robinson, R.M. and Smith, R.H. Monitoring macrofungi on DRF sites sprayed with phosphite: progress report.

Science Project Plans

The following were recently approved:

Supervising scientist: Norm McKenzie
Project: A survey of the biodiversity of terrestrial, aquatic and groundwater habitats of the Pilbara IBRA Region

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