# SCIENCE COMMUNICATIONS

# May 2001 - July 2001

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Science Communications lists titles of publications, reports etc prepared by Science staff. This issue is for the period May 2001 to July 2001. If you require a copy of any listings please contact the authors or Christine Farrell at Science House, Kensington or Lisa Wright at Woodvale

Neil Burrows Director Science Division

#### Journal Publications

- Abbott, I. (2001). Aboriginal names of mammal species in south-west Western Australia. *CALMScience* **3.** pp. 433-486.
- Abbott, I. (2001). Historic record of Australian pelican, *Pelecanus conspicillatus*, breeding in southwest Western Australia. *Western Australian Naturalist* **23.** pp. 1-7.
- Behn, G., McKinnell, F.H., Caccetta, P. and Vernes, T. (2001). Mapping forest cover, Kimberley region of Western Australia. *Australian Forestry* **64.** pp. 80-87.
- Burrows, N.D., Ward, B.G. and Robinson, A.D. (2001). Bark as fuel in a moderate intensity jarrah forest fire. *CALMScience* **3.** pp. 405-409.
- CALMScience Division, Department of Conservation and Land Management, Western Australia (2001). CALMScience communications. February 2001-April 2001. Department of Conservation and Land Management, Western Australia, pp. 1-10.

- CALMScience Division, Department of Conservation and Land Management, Western Australia (2001). CALMScience: Western Australian journal of conservation and land management. Vol. 3, no. 4. Department of Conservation and Land Management, Western Australia, pp. 405-626.
- Gibson, N., Keighery, G.J. and Lyons, M.N. (2001). Vascular flora of Scott National Park, Camping Reserve 12951 and Gingilup Swamps Nature Reserve, Western Australia. *CALMScience* **3.** pp. 411-432.
- Harvey, J.M., Alford, J.J., Longman, V.M. and Keighery, G.J. (2001). A flora and vegetation survey of the islands of the Houtman Abrolhos, Western Australia. *CALMScience* **3**. pp. 521-623.
- Kay, W.R., Halse, S.A., Scanlon, M.D. and Smith, M.J. (2001). Distribution and environmental tolerances of aquatic macroinvertebrate families in the agricultural zone of southwestern Australia. *Journal of the North American Benthological Society* 20. pp. 182-199.
- Whitford, K.R. (2001). Dimensions of tree hollows used by birds and mammals in the jarrah forest: improving the dimensional description of potentially usable hollows. *CALMScience* **3.** pp. 499-511.
- Whitford, K.R. and Williams, M.R. (2001). Survival of jarrah (*Eucalyptus marginata* Sm.) and marri (*Corymbia calophylla* Lindl.)

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habitat trees retained after logging. Forest Ecology and Management **146.** pp. 181-197.

Wilkinson, C.J., Shearer, B.L., Jackson, T.J. and Hardy, G.E. St. J. (2001). Variation in sensitivity of Western Australian isolates of *Phytophthora cinnamomi* to phosphite *in vitro*. *Plant Pathology* **50**. pp. 83-89.

#### **Books**

McCaw, L., Hagan, R. and Gould, J. (2001). Managing fire in regrowth eucalypt forests. *In: Intensive Management of Regrowth Forests for Wood Production in Australia: a Review of Current Practice and Future Potential* (eds. M.J. Connell, R.J. Raison & A.G. Brown). CSIRO Forestry and Forest Products, Canberra. pp. 39-43.

### Conference/Workshop Papers

- Keighery, B. and Keighery, G. (2001).
  Biology and weed risk of Euphorbia terracina in Western Australia. In:
  Euphorbia terracina (Geraldton Carnation Weed or Spurge): a Guide to its Biology and Control and Associated Safety Issues: Proceedings of a Workshop Conducted by Environmental Weeds Action Network, 7 October 2000 Environmental Weeds Action Network, Perth. pp. 4-7.
- Keighery, G., Halse, S. and McKenzie, N. (2001). Why wheatbelt valleys are valuable and vulnerable: the ecology of wheatbelt valleys and threats to their survival. *In: Conference Papers: Dealing With Salinity in Wheatbelt Valleys: Processes, Prospects and Practical Options, Merredin, 30 July-1 August 2001* State Salinity Council, Perth. pp. 55-65.
- Porter, W.M., Bartle, J. and Cooper, D. (2001). Fitting perennials into an annual world. *In: Conference Papers: Dealing With Salinity in Wheatbelt Valleys: Processes, Prospects and Practical Options, Merredin, 30 July-1 August 2001* State Salinity Council,

#### **Abstracts**

- Bartle, J., Olsen, G., Carslake, J. and Cooper, D. (2001). *Acacia* species as large scale crop plants in the Australian wheatbelt (ABSTRACT). *In: Acacia Symposium: the Conservation and Utilisation Potential of Australian Dryland Acacias: 13-14th July, 2001, Dalwallinu, Western Australia* Shire of Dalwallinu, Dalwallinu, pp. 1.
- Brand, J.E. (2001). Review of the influence of *Acacia* species on sandalwood (Santalum spicatum) establishment in Western Australia (ABSTRACT). *In: Acacia Symposium: the Conservation and Utilisation Potential of Australian Dryland Acacias: 13-14th July, 2001, Dalwallinu, Western Australia* Shire of Dalwallinu, Dalwallinu. pp. 1.
- Buist, M., Coates, D. and Yates, C. (2001). Rarity and threat in relation to the conservation of *Acacia* in Western Australia (ABSTRACT). *In: Acacia Symposium: the Conservation and Utilisation Potential of Australian Dryland Acacias: 13-14th July, 2001, Dalwallinu, Western Australia* Shire of Dalwallinu, Dalwallinu, pp. 1.
- Byrne, M. (2001). The role of genetics in the conservation and utilization of Acacia. In: Abstracts: Society for Conservation Biology: Macquarie University, Sydney, July 13-16, 1998 Shire of Dalwallinu, Dalwallinu. pp. 1.
- Halse, S., Shiel, R.J., Froend, R.H. and Cale, D.J. (2001). Biodiversity is multifaceted: cross-taxon congruence in species richness patterns in wetlands (ABSTRACT). In: Final Program & Abstracts: Fenner Conference on the Environment 2001: Biodiversity Conservation in Freshwaters, 5-8 July 2001, Canberra Australian Academy of Science, Canberra. pp. 35.
- Maslin, B.R. (2001). Australian dryland acacias with edible seeds (ABSTRACT). *In: Acacia Symposium:*

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- the Conservation and Utilisation Potential of Australian Dryland Acacias: 13-14th July, 2001, Dalwallinu, Western Australia Shire of Dalwallinu, Dalwallinu. pp. 1.
- Maslin, B.R. (2001). Is systematics critical for effective utilisation and conservation of Acacia? (ABSTRACT). In: Acacia Symposium: the Conservation and Utilisation Potential of Australian Dryland Acacias: 13-14th July, 2001, Dalwallinu, Western Australia Shire of Dalwallinu, Dalwallinu, pp. 1-2.
- McCaw, L., Gould, J.S. and Cheney, N.P. (2001). Prediction of high-intensity forest fires in eucalypt forests (ABSTRACT). In: Conference proceedings: Forests in a Changing Landscape: 16th Commonwealth Forestry Conference jointly with the 19th Biennial Conference of the Institute of Foresters of Australia, Fremantle, Western Australia, 18-25 April 2001 pp. 1.
- Miller, J., Maslin, B.R., Andrew, R. and Bayer, R. (2001). Towards an understanding of variation within the mulga complex (*Acacia anura* and relatives) using nuclear DNA techniques (ABSTRACT). *In: Acacia Symposium: the Conservation and Utilisation Potential of Australian Dryland Acacias: 13-14th July, 2001, Dalwallinu, Western Australia* Shire of Dalwallinu, Dalwallinu. pp. 1.
- Monks, L. and Coates, D. (2001). The translocation of two critically endangered *Acacia* species (POSTER ABSTRACT). *In: Acacia Symposium: the Conservation and Utilisation Potential of Australian Dryland Acacias: 13-14th July, 2001, Dalwallinu, Western Australia* Shire of Dalwallinu, Dalwallinu, pp. 1.
- Patrick, S. (2001). Botanical survey with the aid of volunteers: a study of the vegetation on a Murchison station (POSTER ABSTRACT). In: Acacia Symposium: the Conservation and Utilisation Potential of Australian Dryland Acacias: 13-14th July, 2001, Dalwallinu, Western Australia Shire of Dalwallinu, Dalwallinu, pp. 1.

- Pinder, A.M., Halse, S.A., Shiel, R.J., McRae, J.M., Cale, D.J. and Pennifold, M.G. (2001). Diversity, endemism and conservation of the invertebrate fauna of saline wetlands in south-western Australia. *In: Book of Abstracts: Societas Internationalis Limnologiae 2001, XXVIII Congress, Monash University, Melbourne, Australia* Monash University, Melbourne. pp. 167.
- Shiel, R.J., Green, J.D. and Halse, S.A. (2001). Copepods of ephemeral waters in arid and temperate Australia. In: Program & Abstracts: Fifth International Crustacean Congress and Summer 2001 Meeting of The Crustacean Society, 9-13 July 2001, the University of Melbourne, Melbourne, Victoria, Australia University of Melbourne, Melbourne. pp. 132.

### Reports

- Abbott, I. (2001). Productivity of biologists in CALMScience Division: a preliminary benchmarking study. Draft. Department of Conservation and Land Management, Western Australia, pp. 1-9.
- Franke, B., Gurner, R. and Froend, R. (2001). Wetland vegetation monitoring, 2000/2001 (Salinity Action Plan). Edith Cowan University, Centre for Ecosystem Management, Joondalup. pp. 1-260.
- Friend, J.A. (2001). Medium-term radio-tracking of dibblers, Fitzgerald River NP: final report to BankWest Landscope Conservation VisaCard. Department of Conservation and Land Management, Western Australia, pp. 1-7.
- Froend, R.H. and Loomes, R. (2001). Relationships between water level, salinity and the emergent and fringing vegetation of Byenup-Muir wetlands: report to the Dept. of Conservation and Land

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- Management. Edith Cowan University, Centre for Ecosystem Management, pp. 1-26.
- Kinal, J. (2001). Using ground-based electromagnetic induction to estimate soil salt storage in south west forests: final report on SPP 1999/09. pp. 1-33.
- Prince, R.I.T. (2001). Aerial survey of the distribution and abundance of dugongs and associated macrovertebrate fauna: Pilbara coastal and offshore region, WA: completion report. Department of Conservation and Land Management, Western Australia, pp. 1-39.
- Start, A.N., Handasyde, T. and Barrett, R.L. (2001). Environmental management issues on the Yampi Sound Defence Training Area (YSTA), Derby, Western Australia: recommendations for the Australian Heritage Commission. Department of Conservation and Land Management, Western Australia, pp. 1-9.
- Thomas, N.D. and Whisson, L. (2001). Farewell felines of Faure: follow-up survey of feral cats on Faure Island. Department of Conservation and Land Management, Western Australia, pp. 1-5.
- Wayne, A., Rooney, J., Ward, C., Wheeler, I. and Mellican, A. (2001). Spotlight surveys to investigate the impacts of timber harvesting and associated activities within the jarrah forest of Kingston State Forest, with particular reference to the koomal (*Trichosurus vulpecula*) and ngwayir (*Pseudocheirus occidentalis*): Kingston Project progress report. Department of Conservation and Land Management, Western Australia, pp. 1-30.
- Wayne, A., Wheeler, I., Ward, C., Rooney, J. and Mellican, A. (2001). The impacts of timber harvesting and associated activities on the small terrestrial vertebrates of the jarrah forest: Kingston Project progress report. Department of Conservation and Land Management, Western Australia, pp. 1-37.

- Williams, M.R. (2001). Grasstrees and woody plants as bio-indicators of past growing conditions and the patchiness of past fires: final report to the Department of Conservation and Land Management. Curtin University of Technology, Perth. pp. 1-15.
- Yung, F.H. (2001). Literature review in sustainability, stochastic methods & PVA and nonlinear dynamics (chaos) for ecological modelling. Department of Conservation and Land Management, Western Australia, pp. 1-56.

# Popular (Landscope, Newsletters, Letters, etc.)

- Burbidge, A. (2001). Bristlebird translocation update. South Coast Threatened Birds Newsletter **5.** pp. 1-2.
- Cochrane, A. (2001). Our frozen future. *Landscope* **16(4).** pp. 23-27.
- De Tores, P. and Rosier, S. (2001). Operation Foxglove reaps rewards. Western Shield Apr. pp. 2.
- Friend, T., Anthony, C. and Thomas, N. (2001). Return to Dryandra: marsupials hop away from extinction. *Landscope* **16(4).** pp. 10-16.
- Gathe, J. (2001). Rottnest acquires herbarium. *CALM News* **May/Jun.** pp. 7.
- Hingston, B. (2001). Growth plots established in Western Australia. *Agroforestry News* **10(1).** pp. 17.
- Keighery, G. and Keighery, B. (2001). Perth's bushland plant biodiversity. *In: Skills for Nature Conservation:* Seminar Series Program, 2001: Exploring Perth's Unique Natural Environment, 9 June 2001 pp. 1-2.
- McKenna, S. and Burrows, N. (2001). Colin a finalist in top science awards. *CALM News* **May/Jun.** pp. 5.

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- Moore, R. (2001). Eucalypts for sawlogs: a pilot project in Western Australia. *Agroforestry News* **10(1).** pp. 16.
- Robinson, R. (2001). Fruits of fire. *Landscope* **16(4).** pp. 48-53.
- Ryan, P. and Brand, J. (2001). Sandalwood: a lucrative solution to salinity problem. *CALM News* **Jan/ Feb.** pp. 6.
- Vernes, T. (2001). Preliminary results from *Santalum macgregorii ex situ* conservation planting. *Sandalwood Research Newsletter* **13.** pp. 6-7.
- Vernes, T. (2001). Sandalwood research newsletter. - Issue 13. Department of Conservation and Land Management, Western Australia, pp. 1
- Williams, A. (2001). Long-tailed peablue (*Lampides boeticus*). Newsletter of the Western Australian Insect Study Society **Feb.** pp. 2-3.
- Williams, M. (2001). More on wedge skippers. Newsletter of the Western Australian Insect Study Society Jun. pp. 8.

# Management plans (Prescriptions, Guidelines, Recovery Plan Reports)

- Craig, G.F. and Coates, D.J. (2001).
  Declared rare and poorly known flora in the Esperance District. *Department of Conservation and Land Management, Western Australia, Wildlife Management Program* **21.** pp. 1-474.
- Patrick, S. (2001). Declared rare and poorly known flora in the Geraldton District. Department of Conservation and Land Management, Western Australia, Wildlife Management Program 26. pp. 1-664.
- Patrick, S.J. and Brown, A.P. (2001). Declared rare and poorly known flora in the Moora district. *Department of Conservation and Land Management, Western Australia, Wildlife Management Program* **28.** pp. 1-639.

#### Submitted

- Broadhurst, L., Coates, D. and Maslin, B. Genetic diversity within and divergence between rare and geographically widespread taxa of the *Acacia acuminata* (Mimosaceae) complex. *Heredity*
- Broadhurst, L., Coates, D.J. and Tan, B.H. Patterns of morphological variation and allelic distribution across a zone of overlap between subspecies of *Geleznowia*. Australian Journal of Botany
- Burbidge, A.H. Quail and button-quail in southern Western Australia. *Western Australian Bird Notes*
- Burbidge, A.A. and Morris, K.D.
  Introduced mammal eradications for nature conservation on Western
  Australian islands: a review. *In:*Conference Proceedings
- Byrne, M. and Coates, D. DNA sequence variation in the declared rare species *Tetratheca aphylla, T. paynterae* and *T. harperi* (Tremandraceae): report to Portman Iron Ore.
- Cochrane, A. Threatened Flora Seed Centre (POSTER ABSTRACT). *In: Seed* Conservation Conference
- Cochrane, A., Lally, T., Monks, L. and Brown, K. The potential for weed invasion in native plant communities: a soil seedbank analysis of East Yornaning Nature Reserve, Western Australia. *Ecological Management and Restoration*
- Crane, C. and Shearer, B. (2001). Impact of *Omphalotus nidiformis* in a climax *Banksia speciosa* community (POSTER ABSTRACT). *In: Fungimap National Conference 22-26 Jun 2001, Denmark, W.A.*
- Cranfield, R.J. *Grevillea bipinnatifida* subsp. *pagna* (Proteaceae), a new subspecies from south-west Western Australia. *Nuytsia*

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- Cranfield, R.J. Two new species of Brachyloma (Epacridaceae), from the South West Botanical Province of Western Australia. Nuytsia
- D'Souza, N.K., Colquhoun, I.J., Shearer, B.L., and Hardy, G.E. St. Biological control of *Phytophthora cinnamomi*: the potential of Western Australian native legume species to reduce inoculum in soil.
- Davis, J.A., Halse, S.A. and Froend, R.H. (2001). Factors influencing biodiversity in coastal plain wetlands of southwestern Australia. *In:*Biodiversity in Wetlands: Assessment, Function and Conservation. Volume 2 (eds B. Gopal, W.J. Junk & J.A. Davis). Elsevier, Amsterdam.
- Elliott, C.P., Yates, C.J., Ladd, P.G. and Coates, D.J. Morphometric, genetic and population studies used to clarify the conservation status of a rare *Acacia* in Western Australia. *Australian Journal of Botany*
- Friend, T. Dalgytes are on the way back. Western Wildlife
- Friend, T. Tools of the trade. *Landscope*
- Friend, T., Anthony, C. and Thomas, N. Marsupials hop away from extinction. *Landscope*
- Friend, T. and Thomas, N. Numbats forever. *Landscope*
- Gibson, N. and Lyons, M. Flora and vegetation of eastern goldfields ranges. Part 5, Hunt Range, Yendilberin and Watt Hills. *Journal of the Royal Society of Western Australia*
- Gould, J.S., Cheney, N.P. and McCaw, L. Project Vesta: research into the effects of fuel structure and fuel load on behaviour of moderate to highintensity fires in dry eucalypt forest: progress report.. In: Proceedings of Bushfire 2001 conference, Christchurch, NZ July 3-6 July

- Halse, S.A., Scanlon, M.D. and Cocking, J.S. Do springs provide a window to the groundwater fauna of the Australian arid zone? (ABSTRACT). *In: Conference abstracts: International Groundwater Conference, Darwin 2002*
- Jarman, P., Friend, T., and Dovey, L. Bridled nailtail Wallaby recovery program. Report to funding body
- Kearney, M., Shine, R., Comber, S. and Pearson, D. Why do geckoes group?: an analysis of social aggregations in two species of Australian lizards. Herpetologica
- Keighery, G. A new species of Blennospora A.Gray (Asteraceae) from the Swan and Scott Coastal Plains. Nuytsia
- Keighery, G.J. A new subspecies of Laxmannia R.Br. (Anthericaceae) from Western Australia. Nuytsia
- Keighery, G.J. Reinstatement of *Burchardia congesta* Lindl. (Anthericaceae). *Nuytsia*
- Maslin, B.R. Wattle: Acacias of Australia. pp. 1 CDROM.
- McCaw, L., Gould, J., and Cheney, N.
  Consumption of bark fuel on jarrah
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  experimental summer fires in southwestern Australia. In: Proceedings of
  Bushfire 2001 Conference, Christchurch,
  NZ, July 3-6
- McKenzie, N.L., Start, A.N. and Bullen, R.D. Foraging ecology and structure of a desert bat fauna. *Australian Journal of Zoology*
- Pearson, D. Greetings from the Western Desert. *Brush-Tailed Rock-Wallaby Newsletter*
- Pearson, D., Shine, R. and Williams, A. Geographic variation in sexual size dimorphism within a single snake species. *Oecologia*

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Van Leeuwen, S.J. and Bromilow, R.B. Survey site descriptions: final report to funding organisation.

Van Leeuwen, S., Fuller, P. and Bromilow, B. Birds: report to Heritage Council.

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