# **SCIENCE COMMUNICATIONS**

# October 2002 - December 2002

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 October to December 2002. 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

Bonnet, X., Pearson, D., Ladyman, M., Lourdais, O. and Bradshaw, D. (2002). Heaven for serpents?: a mark-recapture study of tiger snakes (Notechis scutatus on Carnac Island, Western Australia. *Austral Ecology* **27.** pp. 442 -450.

Broadhurst, L. and Coates, D. (2002). Genetic diversity within and divergence between rare and geographically widespread taxa of the Acacia acuminata (Mimosaceae) complex. *Heredity* **88.** pp. 250-257.

Kinnear, J.E., Sumner, N.R. and Onus, M.L. (2002). The red fox in Australia: an exotic predator turned biocontrol agent. *Biological Conservation* **108.** pp. 335-359.

Pearson, D., Shine, R. and How, R. (2002). Sexspecific niche partitioning and sexual size dimorphism in Australian pythons (Morelia spilota imbricata). *Biological Journal of the Linnean Society* 77. pp. 113-125.

Pinder, A.M. and McEvoy, P.K. (2002). Embolocephalus yamaguchii (Brinkhurst, 1971) (Clitellata:Tubificidae) from South Australian streams. *Records of the South Australian Museum* **35.** pp. 139-145.

Yates, C.J. and Broadhurst, L.M. (2002). Assessing limitations on population growth in two critically endangered Acacia taxa. *Biological Conservation* **108.** pp. 13-26.

# Conference/Workshop Papers

Byrne, M. and Broadhurst, L. (2002).

Development of native germplasm for agroforestry. *In: Plant Breeding for the 11th Millennium: Proceedings of the 12th Australasian Plant Breeding Conference.* 

«Title»
«Company Name»
«Address Line 1»
«City»

Perth, Western Australia: 15-20th September 2002 (ed. J.A. McComb). Australasian Plant Breeding Association, Perth. pp. 178-183.

Wheeler, M.A., Byrne, M. and McComb, J.A. (2002). Genetic diversity and phylogenetic relationships within Eucalyptus marginata (Myrtaceae). In: Plant Breeding for the 11th Millennium: Proceedings of the 12th Australasian Plant Breeding Conference, Perth, Western Australia: 15-20th September 2002 Australasian Plant Breeding Association, Perth. pp. 254-257.

#### **Abstracts**

Byrne, M. and Broadhurst, L. (2002).

Development of native germplasm for agroforestry (ABSTRACT). In: Plant Breeding for the 11th Millennium: 12th Australasian Plant Breeding Conference, Perth, Western Australia: 15-20th September 2002 Conference Organising Committee, Perth. pp. 53.

Wheeler, M.A., Byrne, M. and McComb, J.A. (2002). Genetic diversity and phylogenetic relationships within Eucalyptus marginata (Myrtaceae) (ABSTRACT). In: Plant Breeding for the 11th Millennium: 12th Australasian Plant Breeding Conference, Perth, Western Australia: 15-20th September 2002 Conference Organising Committee, Perth. pp. 141.

# Reports

Burrows, N.D. (2002). Fire regimes for the conservation of biodiversity in south-west forest ecosystems: a concept for discussion. Department of Conservation and Land Management, Western Australia, pp. 1-8.

(Continued on page 2)

(Continued from page 1)

- Farr, J. and Ward, S. (2002). Report on Monterey pine aphid (Essigella californica) monitoring in Western Australia for 2000-2002. Department of Conservation and Land Management, Western Australia, pp. 1-22.
- Hollister, C., Coad, B., Campbell, R., Hislop, M. and Mahon, B.S. (2002). WA index of taxonomic literature. Rev.. Department of Conservation and Land Management, Western Australia, pp. 1-379.
- Hopkins, A. (2002). Report on the Biodiversity Monitoring Seminar & Workshop, Perth 7, 8 February, 2002. In: Theme 4: Rangelands Monitoring: Implementation of the Australian Collaborative Rangeland Information System, Western Australia: Report for National Land and Water Resources Audit Department of Agriculture, Western Australia, pp. 18-30.
- Keighery, B.J., Keighery, G.J. and Santich, S. (2002). A description of natural values of the south Bunbury to Capel coastal corridor: report to EPA/DPI. Department of Environmental Protection, Western Australia, pp. 1-46.
- Martin, K. (2002). The impact on non-target, small mammals from 1080 baiting for feral cat control in arid and semi arid areas of Western Australia. Thesis (B.Sc.(Hons.)) University of Western Australia. pp. 1-55.
- Pearson, D.J. (2002). The ecology and conservation of the south-western carpet python, Morelia spilota imbricata. Thesis (Ph.D.) University of Sydney. pp. 1-202.

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

- Franks, A.J., Yates, C.J. and Hobbs, R.J. (2002). Sex outside the city: habit fragmentation and rare plants. *Danthonia* **11(2).** pp. 6-7.
- Friend, T. (2002). Headland home to rare colony: chance to learn about secretive potoroo. *Weekend Extra* **19 Jan.** pp. 7.
- Keighery, B. and Keighery, G. (2002). Beard, John Stanley. *In: The Oxford Companion to Australian Gardens* (eds R. Aitken & M. Looker). Oxford University Press, Melbourne. pp. 80.
- Keighery, G. and Gibson, N. (2002). The influence of Robert Brown on Western Australian botany. *Australian Garden History* **14(3).** pp. 5-8.
- Keighery, G. and Keighery, B. (2002). Fairall, Arthur Robert. *In: The Oxford Companion to Australian Gardens* (eds R. Aitken & M. Looker). Oxford University Press, Melbourne. pp. 209.

- Keighery, G. and Keighery, B. (2002). Gardner, Charles Austin. *In: The Oxford Companion to Australian Gardens* (eds R. Aitken & M. Looker). Oxford University Press, Melbourne. pp. 254.
- Keighery, G. and Keighery, B. (2002). Preiss, (Johann August) Ludwig. *In: The Oxford Companion to Australian Gardens* (eds R. Aitken & M. Looker). Oxford University Press, Melbourne. pp. 487.
- Keighery, G. and Keighery, B. (2002). Roe, John Septimus. *In: The Oxford Companion to Australian Gardens* (eds R. Aitken & M. Looker). Oxford University Press, Melbourne. pp. 513.

# Submitted

- Bartle, J. and Maslin, B.R. Acacia: woody legume crop options for agriculture in southern Australia. *In: Proceedings of the 2002 Agroforestry Expo*
- Brand, J.E., Robinson, N. and Archibald, R.D. Establishment and growth of sandalwood (Santalum spicatum) in south-western Australia: Acacia host trials. *Australian Forestry*
- Coates, D.J., Carstairs, S.A. and Hamley, V. Evolutionary patterns and genetic structure in localized and widespread species in a triggerplant (Stylidium caricifolium) complex. *American Journal of Botany*
- Cochrane, A. Seed notes for Western Australia.
  Samara: Newsletter of the International
  Partners of the Millennium Seed Bank
- Elliott, C.P. and Byrne, M. Phylogenetics and the conservation of rare taxa in the Eucalyptus angustissima complex in Western Australia. *Conservation Genetics*
- Farr, J.D., Swain, D. and Metcalf, F. Spatial analysis of a Uraba lugens Walker (Lepidoptera: Noctuidae) outbreak in the southwest of Western Australia: does logging, vegetation type or fire influence outbreaks?. *Australian Forestry*
- Farr, J.D. and Ward, S. Report on Monterey pine aphid (Essigella californica) monitoring in Western Australia. *In: Research Working Group 7, Forest Health Meeting*
- Friend, T. Gilbert's potoroo. Nature Australia
- Halse, S.A., Ruprecht, J.K. and Pinder, A.M. Salinization and prospects for biodiversity in rivers and wetlands of south-west Western Australia. *Australian Journal of Botany*

(Continued on page 3)

- Hickey, R., Pearson, G. and Piersma, T. (2003). Maps, mud and students: field experiences in Western Australia(POSTER ABSTRACT). *In: Proceedings of the 2003 Association of American Geographers Annual Meeting* Association of American Geographers, pp. 1.
- Lepschi, B.J., Trudgen, M.E. and van Leeuwen, S.J. Two new species of Dampiera (Goodeniaceae) from the Pilbara region Western Australia. *Nuytsia*
- Lyons, M. and Keighery, G. A new species of Hypoxis L. (Hypoxidaceae) from Western Australia. *Nuytsia*
- Lyons, M. and Keighery, G. A new species of Tribonanthes (Haemodoraceae) from gypsum soils in Western Australia. *Nuytsia*
- Matthes, M. and Monks, L. Rare plant translocations: theory, procedures, techniques and real life examples. *In: Australian Network for Plant Conservation Conference*
- McCaw, L., Gould, J. and Cheney, N. Bluegum plantations: are we under-estimating the fire hazards. *In: Proceedings of the Australian Forest Growers national conference*
- McCaw, W.L., Gould, J.S. and Cheney, N.P. Do eucalypt forest fires burn faster and hotter in older fuels?: new experimental evidence from Project Vesta. *In: Proceedings of Third International Wildland Fire Conference*
- McCaw, L. and Sneeuwjagt, R. (2002). Altered fire regimes as a potential factor in decline of tuart forests and woodlands. *In: Proceedings of the Tuart Science Workshop, 24th July, 2002*
- McKenzie, N.L., Burbidge, A.H. and Rolfe, J.K. Effect of salinity on small, ground-dwelling animals in the Western Australian wheatbelt. Australian Journal of Botany
- Pearson, D., Shine, R. and Williams, A. Thermal biology of large snakes in cool climates: a radiotelemetric study of carpet pythons in southwestern Australia. *Journal of Thermal Biology*
- Pearson, G., Piersma, T., de Goeij, P., Hickey, R., Rogers, D., Lavaleye, M., Honkoop, P., Mann, M., Costello, T., Joshua, F., Robinson, J., Crean, M. and Wade, S. The long mud: benthos and shorebirds of the foreshore of Eighty-Mile Beach, Western Australia. *In:* RNIOZ Report
- Smith, J.A., Wright, L.J. and Morris, K.D. BiblioChuditch: the chuditch, Dasyurus geoffroii (Gould 1841): a Wildlife Science Library bibliography. *Conservation Science Western*

#### Australia

- Thomas, N.D. and Algar, D. Assessment of feral cat abundance and control options at Two Peoples Bay Nature Reserve.
- Warren, K., Swan, R., Bodetti, T., Friend, T., Hill, S. and Timms, P. Ocular Chlamydia infections of western barred bandicoots (Perameles bougainville) in Western Australia. *Journal of Zoo and Wildlife Medicine*
- Warren, K.S., Swan, R.A., Morgan-Ryan, U.M., Friend, J.A. and Elliot, A. Cryptosporidium muris infection in bilbies (Macrotis lagotis). *Journal of Wildlife Diseases*

# **Subject Area Contacts:**

Sustainable Resources Group Manager: John McGrath

jmcgrath@calm.wa.gov.au

Ph: 93340303

Biodiversity Conservation Group Manager:

Keith Morris

keithm@calm.wa.goc.au

Ph: 94055143

W.A. Herbarium Group Manager:

Neville Marchant

nevillem@calm.wa.gov.au

Ph: 93340505

Perth Observatory Manager:

James Biggs

jamesbi@calm.wa.gov.au

Ph: 92938255

Science Adviser:

Ian Abbott

iana@calm.wa.gov.au Ph: 93340526

# **Library Contacts:**

Lisa Wright, Woodvale lisaw@calm.wa.gov.au Ph: 94055132

Terry McGowan (Acting), Kensington terrymc@calm.wa.gov.au

Ph: 93340324

Beng Siew Mahon, Herbarium bengm@calm.wa.gov.au

Ph: 93340494