

## Publications by Tropical Savannas CRC researchers 2007-08

### Refereed papers

- Barrett, D., Renzullo, L.J., Guerschman, J., Hill, M.J. 2007, 'Multi-sensor model-data assimilation for improved modeling of savanna carbon and water budgets,' *EOS Transactions, American Geophysical Union* 88 (52), Fall Meeting Suppl., Abstract B21B-08.
- Brooke, M, de L., Butchart, S.H.M, Garnett, S.T., Crowley, G.M., Mantilla-Beniers, N.B. & Stattersfield, A.J. 2008, 'Rates of movement of threatened bird species between Red-List categories and toward extinction' *Conservation Biology* 22, 417–427.
- Collins, J., Hutley, L.B., Williams, R.J., Boggs, G., Bell, D., Bartolo, R. 2008, 'Estimating landscape-scale vegetation carbon stocks using airborne multi-frequency polarimetric synthetic aperture radar (SAR) in the savannas of north Australia', *International Journal of Remote Sensing* (in press)
- Cook, G.D., Williams, R.J., Stokes, C., Hutley, L.B., Ash, A.J. in press, 'Managing sources and sinks of greenhouse gases in Australia's rangelands and tropical savannas', *Rangeland Ecology and Management*.
- Crowley, G.M. 2008. Cockatoo Grass *Alloteropsis semialata* as a keystone species in northern Australia. *Northern Territory Naturalist* 20, 58–63.
- Crowley, G.M., Garnett, S.T. and Shephard, S. (in press), Impact of storm-burns on *Melaleuca viridiflora* invasion of grasslands and grassy woodlands on Cape York Peninsula, Australia. *Austral Ecology*.
- Dawes-Gromadzki, T. Z. 2008, 'Abundance and diversity of termites in a savanna woodland reserve in tropical Australia', *Australian Journal Entomology*. (in press)
- Dawes-Gromadzki, T.Z. 2007. Short-term effects of low intensity fire on soil macroinvertebrate assemblages in different vegetation types in an Australian tropical savanna. *Austral Ecology* 32, 663–668.
- Drucker, A.G., Garnett, S.T., Luckert, M.K., Crowley, G.M., Gobijs, N. (in press). Manager-based valuations of alternative fire management regimes on Cape York Peninsula, Australia. *International Journal of Wildland Fire*.
- Edwards, A.C. & Russell-Smith, J.R.S. 2008, 'Ecological thresholds and the status of fire-sensitive vegetation in western Arnhem Land, northern Australia: implications for management,' *International Journal of Wildland Fire*, in press.
- Garnett, S.T. & Crowley, G.M. (in press), 'The history of threatened birds in Australia and its offshore islands,' *Contributions to the History of Australasian Ornithology. Memoir Series of the Nuttall Ornithological Club*.
- Fensham, R.J., Bray, S.G. & Fairfax, R.J. 2007, 'Evaluation of aerial photography for predicting trends in structural attributes of Australian woodland including comparison with ground-based monitoring data', *Journal of Environmental Management*, 83: 392–401.
- Hannah, D., Woinarski, J.C.Z., Catterall, C.P., McCosker, J.C., Thurgate, N.Y., & Fensham, R.J. 2007, 'Impacts of clearing, fragmentation and disturbance on the bird fauna of eucalypt savanna woodlands in central Queensland, Australia', *Austral Ecology*, 32, 261–276.
- Hunt, L.P., Petty, S., Cowley, C., Fisher, A., Ash, A.J. & MacDonald, N. 2007, 'Factors affecting the management of cattle grazing distribution in northern Australia: preliminary observations on the effect of paddock size and watering points', *The Rangeland Journal*, 29, 167–179.
- Krull, E.N., Bray, S., Harms, B., Baxter, N., Bol, R. & Farquar, G. 2007, 'Development of a stable isotope index to assess decadal-scale vegetation change and application to woodlands of the Burdekin catchment, Australia', *Global Change Biology*, 3(7):1455–1468.
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- Lehmann, C.E.R., Prior, L.D., Williams, R.J. & Bowman, D.M.J.S. 2008, 'Spatio-temporal trends in tree cover of a tropical mesic savanna are driven by landscape disturbance', *Journal of Applied Ecology* 45, 1304–1311.
- Liedloff, A.C. & Cook, G.D. 2007, 'Modelling the effects of rainfall variability and fire on tree populations in an Australian tropical savanna with the FLAMES simulation model', *Ecological Modelling*, 201:269–282.
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- Martin, J.K., Coulson, G., Di Stefano, J., Ritchie, E.G., Greenfield, A., Catachin, H., Evans, L. 2007, 'The Viggers and Hearn conundrum: a kangaroo home range study with no implication for land management', *Journal of Applied Ecology*, 44 (5), 1080–1085.
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- Prior, L.D., Murphy, B.P. & Russell-Smith, J.R.S. 2008, 'Environmental and demographic correlates of tree recruitment and mortality in north Australian savannas', *Forest Ecology & Management*, in press.
- Price, O., Edwards, A., Russell-Smith J.R.S. 2007, 'The efficacy of permanent firebreaks and aerial prescribed burning in western Arnhem Land, Northern Territory, Australia', *International Journal of Wildland Fire*, 16: 295–307.
- Russell-Smith, J.R.S., Djoeroemana, S., Maan, J. & Pandanga, P. 2007, 'Rural livelihoods and burning practices in savanna landscapes of Nusa Tenggara Timur, eastern Indonesia', *Human Ecology*, 35: 345–359.
- Russell-Smith, J.R.S., Yates, C.P., Whitehead, P.J., Smith, R., Craig, R., Allan, G., Thackway, R., Frakes, I., Cridland, Meyer, M. & Gill, A.M. 2007, 'Bushfires 'down under': Patterns and implications of Australian landscape burning', *International Journal of Wildland Fire*, 16: 361–377.
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- Yates, C.P., Edwards, A.C. & Russell-Smith J.R.S. 2008, 'Big fires and their ecological impacts in Australian savannas: size and frequency matters', *International Journal of Wildland Fire*, in press.
- Ziembicki, M., & Woinarski, J.C.Z. 2007, 'Monitoring continental movement patterns of the Australian Bustard through community-based surveys and remote sensing', *Pacific Conservation Biology* 13, 128–142.

## Books

- Crowley, G.M., T. Calnan, Seabrook, W. & Hokkanen, R. 2007, *Healthy Country Indicator Species for Cape York Peninsula*, Tropical Savannas Cooperative Research Centre, Darwin.
- Fensham, R. & Fairfax, R. 2007, *Talking fire: Burning for pastoral management in the Desert Uplands*, Land & Water Australia, Canberra; Desert Uplands Build-up and Development Strategy Committee, Barcardine.
- Garnett, S., Woinarski, J., Gerritsen, R., & Duff, G. 2008, *Future options for north Australia*, Charles Darwin University Press, Darwin.
- Lane, M.B., Robinson, C.J. & Taylor, B., (eds.) in press, *Contested Country: Local and Regional Environmental Management in Australia*, CSIRO Publishing, Melbourne.
- Woinarski, J.C.Z., Mackey, B., Nix, H., & Traill, B. 2007, *The Nature of Northern Australia: natural values, ecological processes and future prospects*, Australian National University e-press, Canberra.
- Woinarski, J.C.Z., Pavey, C., Kerrigan, R., Cowie, I., & Ward, S. 2007, *Lost from our landscape: threatened species of the Northern Territory*, NT Government Printer, Darwin.

## Book chapters

- Cook, G., Williams, R.J., Russell-Smith, J.R.S., Purdon, P. & Edwards, A. in press, 'Fire fuels and greenhouse gases,' in *Managing fire regimes in north Australian savannas—ecology, culture, economy*, Russell-Smith J, Whitehead P, Cooke P (eds), CSIRO Press, Melbourne.
- Fisher, A. 2008, 'Long-tailed Planigale *Planigale ingrami*', in *The Australian Museum Complete Book of Australian Mammals. Revised edition*. (Ed. S. Van Dyck and R. Strahan) Australian Museum, Sydney, pp 110-111.
- Fleming, M. & Woinarski, J.C.Z. 2008, 'Arnhem Rock-rat', in *The Mammals of Australia Third edition*, (Eds S. Van Dyck and R. Strahan) Reed New Holland, Sydney, pp. 654-656.
- Garnett, S.T. & Crowley, G.M. 2007, 'A medley of problems: Golden-shouldered Parrot', in *The Nature of Northern Australia. Its natural values, ecological processes and future prospects*, Woinarski, J.C.Z., Mackey, B., Nix, H. & Traill, B. (eds), ANU ePress, Canberra, p. 68.
- Garnett, S.T. & Woinarski, J.C.Z. 2007, 'A case for Indigenous threatened species management', in *Investing in Indigenous Natural Resource Management*, M.K. Luckert, B.M. Campbell, J.T. Gorman and S.T. Garnett (eds), Charles Darwin University Press, Darwin, pp. 38-44. .
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- Johnson, K., & Woinarski, J.C.Z. 2008, 'Carpentarian Antechinus' in *The Mammals of Australia. Third edition*. (Eds S. Van Dyck and R. Strahan) Reed New Holland, Sydney, pp. 71–72.
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- Robinson, C.J., Taylor, B. & Margerum, R., in press, 'On a learning journey to no-where?: The practice and politics of evaluating outcomes evaluating of natural resource management in northern Queensland', in *Contested Country: Local and Regional Environmental Management in Australia*, Lane, MB, Robinson, CJ and Taylor, B (eds.), CSIRO Publishing, Melbourne
- Williams, R.J., Barrett, D., Cook, G.D., Gill, A.M., Hutley, L.B., Liedloff, A.C., Myers, B.A. & Woinarski, J.C.Z. (in press), 'Landscape-scale fire research in northern Australia: delivering multiple benefits in a changing world', in *Managing fire regimes in north Australian savannas—ecology, culture, economy*, Russell-Smith J, Whitehead P, Cooke P (eds), CSIRO Press, Melbourne.
- Woinarski, J.C.Z. in press, 'Pardalotes, family Pardalotidae', in *Handbook of the Birds of the World*. Lynx Editions, Barcelona.
- Woinarski, J.C.Z. in press, 'Tropical Savannas', in *10 key issues in Australia's biodiversity conservation*. (eds D. Lindenmayer, S. Dovers, MH Olson and S. Morton), CSIRO, Melbourne.
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- Woinarski, J.C.Z. 2007, 'Nature's infinite variety: conservation choice and management for dynamic ecological systems', in *Managing and designing landscapes for conservation: moving from perspectives to principles*, (eds D. Lindenmayer and R. Hobbs.) Blackwell, Oxford, pp. 101–110.
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## Reports

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- Fisher, A., & Woinarski, J.C.Z. 2008, 'Fauna, with special reference to threatened species', in *Kakadu National Park Landscape Symposia Series 2007-2009. Symposium 1: Landscape Change Overview*. Supervising Scientist Internal report 532, (eds D. Walden and S. Nou.). (Department of the Environment, Water, Heritage and the Arts, Canberra, pp. 103–120.
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### Conference papers

Blyth, M., Myers, B.A., Russell-Smith, J.R.S. & Djoeroemana, S. 2007, 'Integrated rural development in east Nusa Tenggara, Indonesia: overview of opportunities, constraints and options for improving livelihoods', in *Integrated rural development in eastern Indonesia* (Eds. Djoeroemana S, Myers BA, Russell-Smith J, Blyth M, Salean), Proceedings of an International Workshop held in Kupang, Indonesia, 5-7 April 2006, ACIAR Proceedings No.126. Australian Centre for International Agricultural Research, Canberra, pp. 9–19.

Blyth, M., Myers, B.A., Russell-Smith, J.R.S. & Djoeroemana, S. 2007, 'Tinjauan umum terhadap kesempatan, kendala dan pilihan untuk memperbaiki mata pencaharian', in *Pembangunan pedesaan terpadu di Nusa Tenggara Timur, Kupang, Indonesia, 5–7 April 2006, jilid pendukung*, (Eds. Djoeroemana S, Myers BA, Russell-Smith J, Blyth M, Salean IET), UNDANA 81 hlm, Kupang, Indonesia, pp. 20–37.

Bray, S.G., Liedloff, A.C., Sim, A.K., Back, P.V. Cook, G.D. & Hoffmann, M.B. 2007, 'Comparison of woody vegetation change datasets from the grazed woodlands of central Queensland', in *Proceedings Northern Beef Research Update Conference, 2007*, pp. 70–77.

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Russell-Smith J, Karunaratne N, Mahindapala R. 2007. *An inventory of medicinal plant species in five Sri Lankan sustainable management areas*. IUCN, Colombo.

Cowley, R.A., Blomfield, C.M., Tarrant M.B. & MacDonald, N. 2008, 'Current levels of utilisation of pasture on extensive cattle properties in northern Australia', in *Multifunctional Grasslands in a Changing World, Proceedings of XXI International Grasslands Congress and VIII International Rangeland Congress, Huhhot China*, Guangdong People's Publishing House.

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## **Presentations**

- \*Dawes-Gromadzki, T.Z., Liedloff, A.C. & Brandis, A.M. 2008, 'Termites as ecosystem engineers: increasing ecohydrological function and soil health in the savanna grazing lands of tropical northern Australia', International Congress of Entomology, Durban, South Africa. July, 2008.
- Dawes-Gromadzki, T.Z., Cook, G.D., Liedloff, A.C. & Brandis, A.M. 2007, 'Impacts of cattle grazing management on termite assemblage structure, ecohydrological function and soil health in semi-arid north Queensland', presented to the Eighth Invertebrate Biodiversity and Conservation/Society of Australian Systematic Biologists Conference, University of Queensland, December 2007.
- Gillieson, D.S. 2007, 'Woody thickening in northern Australian savannas: history, causes and potential solutions', presented to the Ecological Society of Australia Conference, Perth 26-30 November.
- Gillieson, D.S. 2008, 'Woody thickening in northern savannas: towards a brown and black ecology', presented to Institute of Australian Geographers Conference, Hobart 30 June - 3 July.
- Kutt, A., Vanderduys, E.P. & Gordon, I.J. 2008, 'Biotoools: indicators for biodiversity outcomes of grazing practices in the Australian rangelands', presented to the International Rangelands Congress and International Grasslands Congress in Hohhot, China, July 2008.
- \*Robinson, C.J., Whitehead, P.J. & Smyth, D. 2007, 'Narrative-based indicators to evaluate co-management effectiveness', presented to the Society for Conservation Biology, Australian Section, Sydney, July.
- \*\* Woinarski, J.C.Z. 2007, 'Contesting the best of what's left: inevitable development pressures on our large natural systems', presented to the Biodiversity Extinction Crisis: an Australian and Pacific Response – Society for Conservation Biology, University of New South Wales, 10 July.
- \* Invited
- \*\* Keynote