

Publications – Rod Peakall

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Refereed Publications to Feb 2007

72. Flanagan, N.S., Peakall, R., Clements, M.A., and Otero, J.T. (2007) Molecular genetic diagnosis of the ‘taxonomically difficult’ Australian endangered orchid, *Microtis angusii*: An evaluation of the utility of DNA barcoding. *Lankesteriana* 7, In press.
71. Heinsohn R, Ebert D, Legge S, **Peakall R** (2007) Genetic evidence for cooperative polyandry in reverse dichromatic *Eclipticus* parrots. *Animal Behavior* In press.
70. **Peakall, R.** (2007) Orchid speciation – confronting the challenges. *Molecular Ecology*, In press. *Invited News and Views Commentary*
69. Gilmore, S., **Peakall, R.**, and Robertson, J. (2007) Organelle DNA haplotypes reflect crop-use characteristics and geographic origins of *Cannabis sativa*. *Forensic Science International*, In press. (doi:10.1016/j.forsciint.2006.10.025)
68. Andrew, R.L., **Peakall, R.**, Wallis, I.R., Foley, W.J. (2007) Spatial distribution of defence chemicals and markers and the maintenance of chemical variation. *Ecology* In press.
67. Flanagan, N.S., **Peakall, R.**, Clements, M.A., Otero, J.T. (2007) Identification of the endangered Australian orchid *Microtis angusii* using allele-specific PCR assay. *Conservation Genetics*, In press (DOI 10.1007/s0592-006-9198-6)
66. **Peakall, R.**, and Lindenmayer, D.B. (2006) Genetic insights into population recovery following experimental perturbation in a fragmented landscape. *Biological Conservation*, 132, 520-532. (DOI 10.1016/j.biocon.2006.05.013)
65. Ramsey, M., Vaughton, G., **Peakall, R.** (2006) Does inbreeding avoidance maintain gender dimorphism in *Wurmbea dioica* (Colchicaceae). *Journal of Evolutionary Biology* 19, 1497-1506. (DOI 10.1111/j.1420-9101.2006.01129.x)
64. Ramsey, M., Vaughton, G., **Peakall R.** (2006) Inbreeding avoidance and the evolution of gender dimorphism in *Wurmbea biglandulosa* (Colchicaceae). *Evolution* 60(3), 529-537.
63. Flanagan, N.S., **Peakall, R.**, Clements, M.A., Otero, J.T., (2006) Conservation of taxonomically difficult species: the case of the Australian orchid, *Microtis angusii*. *Conservation Genetics* 7, 847-859 (DOI 10.1007/s10592-006-91119-8.)
62. Flanagan, N.S., Ebert, D., Porter, C., Rossetto, M., and **Peakall, R.** (2006) Microsatellite markers for evolutionary studies in the sexually deceptive orchid genus *Chiloglottis*, *Molecular Ecology Notes* 6, 123-126 (DOI 10.1111/j.1471-8286.2005.001161.x)

61. **Peakall, R.**, and Smouse, P. E. (2006) GENALEX 6: Genetic Analysis in Excel. Population genetic software for teaching and research. *Molecular Ecology Notes* 6, 288-295. (DOI 10.1111/j.1471-8286.2005.01155.x)
(Freely available from The Australian National University, Canberra, Australia. <http://www.anu.edu.au/BoZo/GenALEX/>)
60. **Peakall, R.**, Ebert, D., Cunningham, R., Lindenmayer, D.B., 2006. Mark-recapture by genetic tagging reveals restricted movements by bush rats, *Rattus fuscipes*, in a fragmented landscape. *Journal of Zoology* 268, 207-216.
59. Andrew, R.L., **Peakall, R.**, Wallis, I.R., Wood, J.T., Knight, E.J., Foley, W.J., 2005. Marker-based quantitative genetics in the wild? The heritability and genetic correlation of chemical defenses in Eucalyptus. *Genetics* 171, 1989-1998.
58. Adcock, G.J., Heinsohn, R., Ebert, D., Amini, N., and **Peakall R.** (2005) Microsatellite loci for behavioural studies of Eclectus parrot (*Eclectus roratus*: Aves). *Molecular Ecology Notes* 5, 616-618.
57. Mant, J., Bower, C.C., Weston, P.H. and **Peakall, R.** (2005) Phylogeography of pollinator-specific sexually deceptive *Chiloglottis* taxa (Orchidaceae): evidence for sympatric divergence? *Molecular Ecology* 14, 3067-3076
56. Schiestl, F.P., and **Peakall, R.** (2005) Identical sex pheromones but differing behavioral responses in pollinators of two sexually deceptive orchids. *Functional Ecology*, 19, 674-680.
55. Mant, J., **Peakall, R.**, and Weston, P.H. (2005) Specific pollinator attraction and the diversification of sexually deceptive *Chiloglottis* (Orchidaceae). *Plant Systematics and Evolution*, 253, 185-200
54. Mant, J., **Peakall, R.**, and Schiestl, F.P. (2005) Does selection on floral odor promote differentiation among populations and species of the sexually deceptive orchids, *Ophrys*. *Evolution* 59, 1449-1463.
53. Lindenmayer, D.B., Cunningham, R.B., and **Peakall, R.** (2005) On the recovery of populations of the bush rat (*Rattus fuscipes*) in forest fragments following major population reduction. *Journal of Applied Ecology* 42, 649-658.
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50. **Peakall, R.**, and Schiestl, F.P. (2004) A mark-recapture study of *male Colletes cunicularius* bees: implications for pollination by sexual deception. *Behavioral Ecology and Sociobiology* 56, 579-584.
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48. Schiestl F.P., **Peakall, R.**, Mant, J.M., Ibarra, F., Schulz, C., Franke, S and Francke, W. (2003) The chemistry of sexual deception in an orchid-wasp pollination system. *Science* 302, 437-438.

47. Beck, N, **Peakall, R.**, and Heinsohn, R. (2003) Isolation and characterisation of polymorphic microsatellite markers in the white-winged chough (*Corcorax melanorhamphos*). *Molecular Ecology Notes* 3, 586-588.
46. **Peakall, R.**, Ebert, D., Scott, L., Meagher, P., and Offord, C. (2003) Comparative genetic study confirms exceptionally low genetic variation in the ancient and endangered relictual conifer, *Wollemia nobilis* (Araucariaceae). *Molecular Ecology* 12, 2331-2343.
45. Hempel, K., and **Peakall, R.** (2003). Cross-species amplification from the crop species *G. max* provided informative microsatellite markers for the study of inbreeding in wild relatives. *Genome* 46, 382-393.
44. **Peakall, R.**, Ruibal, M., and Lindenmayer, D.B. (2003) Spatial autocorrelation analysis offers new insights into gene flow in the Australian Bush Rat, *Rattus fuscipes*. *Evolution* 57, 1182-1195.
43. Andrew, R.L., Miller J.T., **Peakall, R.**, Crisp, M.D., and Bayer, R.J. (2003) Genetic, cytogenetic and morphological variation in a mixed population of *Acacia aneura* (Leguminosae: Mimosoideae) species complex members. *Australian Systematic Botany* 16, 69-80.
42. Gilmore, S., and **Peakall, R.** (2003) Isolation of microsatellite markers in *Cannabis sativa* L. (marijuana). *Molecular Ecology Notes* 3, 105-107.
41. Gilmore, S., **Peakall, R.**, and Robertson, J. (2003) Short tandem repeat (STR) DNA markers are hypervariable and informative in *Cannabis sativa*: implications for forensic investigations. *Forensic Science International* 131, 65-74.
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38. **Peakall, R.**, Jones, L., Bower, C. C. and Mackey, B. G. (2002) Bioclimatic assessment of the geographic and climatic limits to hybridisation in a sexually deceptive orchid system. *Australian Journal of Botany* 50, 21-30.
37. Maguire, T. L., **Peakall, R.**, and Saenger, P. (2002) Comparative analysis of genetic diversity in the mangrove species *Avicennia marina* (Forsk.) Vierh. (Avicenniaceae) detected by AFLPs and SSRs. *Theoretical and Applied Genetics*, 104, 388-398.
36. O'Hanlon, P.C., Briese, D. T., and **Peakall, R.** (2000) Know your enemy: The use of Molecular Ecology in the *Onopordum* biological control project. Proceedings of the X International Symposium on Biological Control of Weeds 4-14 July 1999, Montana State University, Bozeman, Montana, USA. Neal R. Spencer (ed.). pp. 281-288.
35. Hogbin, P. M., and **Peakall, R.** (2000) The effective management of threatened flora: lessons from the case of *Zieria prostrata*. *Pacific Conservation Biology* 6, 238-244.
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31. Huang, B. X., **Peakall, R.**, and Hanna, P. J. (2000) Analysis of population genetic structure of blacklip abalone (*Haliotis rubra*) using RAPD, minisatellite and microsatellite markers. *Marine Biology* 136, 207-216.
30. Hogbin, P. M., **Peakall R.**, and Sydes, M. A. (2000) Achieving practical outcomes from genetic studies of rare plants. *Australian Journal of Botany* 48, 375-382
29. O'Hanlon, P.C., **Peakall, R.**, and Briese, D. T. (1999) AFLP reveals introgression in weedy *Onopordum* thistles: hybridization and invasion. *Molecular Ecology* 8, 1239-1246.
28. Smouse, P. E., and **Peakall, R.** (1999) Spatial autocorrelation analysis of multi-allele and multi-locus genetic micro-structure. *Heredity* 82, 561-573.
27. Hogbin, P. M. and **Peakall R.** (1999) Evaluation of the contribution of genetic research to the management of the endangered plant, *Zieria prostrata*. *Conservation Biology* 13, 514-522.
26. Krauss, S. L., and **Peakall, R.** (1998) An evaluation of the AFLP fingerprinting technique for analysis of paternity in natural populations of *Persoonia mollis* (Proteaceae). *Australian Journal of Botany* 46, 533-546. *Invited contribution.*
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23. Sydes, M. A., and **Peakall, R.** (1998) Extensive clonality in the endangered shrub *Haloragodendron lucasii* (Haloragaceae) revealed by allozymes and RAPDs. *Molecular Ecology* 7, 87-96.
22. **Peakall, R.** (1997) PCR-based genetic markers and their applications to turfgrass breeding. *International Turfgrass Society Research Journal* 8. 243-259. *Invited contribution.*
21. **Peakall, R.**, Bower, C. C., Logan, A. E., and Nicol H. I. (1997) Confirmation of the hybrid origin of *Chiloglottis X pescottiana* R. S. Rogers (Orchidaceae: Diurideae). 1. Genetic and morphometric analysis. *Australian Journal of Botany* 45, 839-855.
20. **Peakall R.** and Sydes M.A. 1996. Defining priorities for achieving practical outcomes from the genetic studies of rare plants. In '*Back from the Brink: refining the threatened species recovery process*'. S. Stephens and S. Maxwell (Eds), Pp. 119-129. Surrey Beatty and Sons, Sydney. *Invited contribution*

19. **Peakall, R.**, and Beattie, A. J. (1996). Ecological and genetic consequences of pollination by sexual deception in the orchid *Caladenia tentaculata*. *Evolution* 50, 2207-2220.
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13. Handel, S. N. and **Peakall, R.** (1993) Mate-seeking wasp pollinators discriminate among floral heights of a sexually deceptive orchid: implications for wasp mating behavior. *Oecologia* 95, 241-245.
12. Huff, D. R., **Peakall, R.**, and Smouse, P. E. (1993) RAPD variation within and among populations of outcrossing buffalograss (*Buchloë dactyloides* (Nutt.) Engelm). *Theoretical and Applied Genetics* 86, 927-934.
11. **Peakall, R.**, Oliver, I., Turnbull, C. L. and Beattie, A. J. (1993) Genetic diversity in an ant dispersed chenopod. *Australian Journal of Ecology* 18, 171-179.
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9. **Peakall, R.** Handel, S. N. and Beattie, A. J. (1991) The evidence for, and importance of ant pollination. In '*Ant-Plant Interactions*' (eds.) C. R. Huxley and D. Cutler, pp. 421-429. Oxford University Press, Oxford. *Invited contribution*.
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Software

Peakall, R., and Smouse, P. E. (2005) GenAEx 6: Genetic Analysis in Excel. Population genetic software for teaching and research. The Australian National University, Canberra, Australia. <http://www.anu.edu.au/BoZo/GenAEx/>

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