

TCFA ALTERNATIVES TO CLEARFELLING

PUBLICATIONS TO FEB 2011

The publications listed here describe research on forest ecology and forest management funded by the *Research into Alternatives to Clearfelling in Old-growth Forests* component of the Tasmanian Community Forestry Agreement, which commenced in 2005, as well as research that was performed at sites established or maintained by this program.

This listing includes 21 journal publications, 23 reports and non-refereed publications, 3 theses (2 Doctoral and 1 Honours) and 32 conference presentations.

Journal publications

Baker SC, Grove SJ, Forster L, Bonham KJ, Bashford D (2009) Short-term responses of ground-active beetles to alternative silvicultural systems in the Warra Silvicultural Systems Trial, Tasmania, Australia. *Forest Ecology and Management* 258: 444-459

Baker S, Neyland M, Grove S (2010) Using aggregated retention to maintain and restore mature forest values in managed forest landscapes. Project summary. *Ecological Management and Restoration* 11: 82

Baker SC, Read SM (2011) Variable retention silviculture in Tasmania's wet forests: ecological rationale, adaptive management and synthesis of biodiversity benefits. *Australian Forestry*, *accepted*

Ford RM, Williams KJH, Bishop ID, Hickey JE (2009) Public judgements of the social acceptability of silvicultural alternatives in Tasmanian wet eucalypt forests. *Australian Forestry* 72: 157-171

Ford RM, Williams KJ, Bishop ID, Hickey JE (2009) Effects of information on the social acceptability of alternatives to clearfelling in Australian wet eucalypt forests. *Environmental Management* 44: 1149-62

Ford RM, Williams KJ, Bishop ID, Webb TJ (2009) A value basis for the social acceptability of clearfelling in Tasmania, Australia. *Landscape and Urban Planning* 90: 196-206

Gates GM, Ratkowsky DA, Grove SJ (2005) A comparison of macrofungi in young silvicultural regeneration and mature forest at the Warra LTER Site in the southern forests of Tasmania. *Tasforests* 16: 127-152.

Gates GM, Ratkowsky DA, Grove SJ (2009) Aggregated retention and macrofungi: a case study from the Warra LTER site, Tasmania. *Tasforests* 18: 33-54

Hickey JE, Neyland MG, Grove SJ, Edwards LG (2006) From little things big things grow: The Warra Silvicultural Systems Trial in Tasmanian wet *Eucalyptus obliqua* forest. *Allgemeine Forst und Jagdzeitung* 177: 113-119

Hingston AB, Grove S (2009) From clearfell coupe to old-growth forest: Succession of bird assemblages in Tasmanian lowland wet eucalypt forests. *Forest Ecology and Management* 259: 459-468.

Hopkins AJM, Harrison KS, Grove SJ, Wardlaw TJ, Mohammed CL (2005) Wood decay fungi and beetle assemblages associated with living *Eucalyptus obliqua* trees: early results from studies at the Warra Long Term Ecological Research Site, Tasmania. *Tasforests* 16: 111-126

Kantvilas G, Jarman SJ (2006) Recovery of lichens after logging: preliminary results from Tasmania's wet forests. *The Lichenologist* 38: 383-394.

Koch AJ, Baker SC (2011) Remotely assessing hollow availability using aerial photographs. *Biodiversity and Conservation*, *in press*

Lauck B, Swain R, Bashford R (2008) The response of the frog *Crinia signifera* to different silvicultural practices in southern Tasmania, Australia. *Tasforests* 17: 29-36

Lefort P, Grove SJ (2009) Early responses of birds to clearfelling and its alternatives in lowland wet eucalypt forest in Tasmania, Australia. *Forest Ecology and Management* 258: 460-471

Neyland M, Hickey J, Beadle C, Bauhus J, Davidson N, Edwards L (2009) An examination of stocking and early growth in the Warra silvicultural systems trial confirms the importance of a burnt seedbed for vigorous regeneration in *Eucalyptus obliqua* forest. *Forest Ecology and Management* 258: 481-494

Neyland MG, Hickey JE, Edwards LG (2009) Safety and productivity at the Warra silvicultural systems trial. *Tasforests* 18: 1-16

Nyvold U, Dawson JK, Hickey JE (2005) An assessment of timber values from alternative silvicultural systems tested in wet *Eucalyptus obliqua* forest in Tasmania. *Tasforests* 16: 19-34.

Ratkowsky DA, Gates GM (2008) Macrofungi in early stages of forest regeneration in Tasmania's southern forests. *Tasforests* 18: 56-66

Rothe A, Hickey JE, Clark SB (2008) Effects of sapling density on *E. obliqua* sapling architecture in a clearfell and a dispersed retention coupe. *Tasforests* 17: 45-56

Williams K, Ford R, Bishop ID, Loiterton D, Hickey J (2007) Realism and selectivity in datadriven visualisations: A process for developing viewer-oriented landscape surrogates. *Landscape and Urban Planning* 81: 213-224

Reports and non-refereed publications

Baker S (2010) The evolution of variable retention: western Canada, the USA and Tasmania. *BC Forest Professional* 17: 12-13.

Baker SC (2011) *Seeking a balance between forestry and biodiversity - the role of variable retention silviculture. Insights from western USA and Canada.* Report to Forest & Wood Products Australia.

Baker S, Grove SJ, McElwee D, Neyland M, Read S, Scott R, Wardlaw T (2009) *Ecological goals, biodiversity outcomes, and performance measures for aggregated retention coupes.* Division of Forest Research and Development Technical Report 03/2009. Forestry Tasmania, Hobart

Chuter R (2007) *Feasibility of burning debris from wet eucalypt forests harvested to an aggregated retention prescription.* Division of Forest Research and Development Technical Report 10/2007. Forestry Tasmania, Hobart, Tasmania

Forestry Tasmania (2009) *Draft Variable Retention Manual. Version 9.* Forestry Tasmania, Hobart, Tasmania

Forestry Tasmania (2009) *A new silviculture for Tasmania's public forests: a review of the variable retention program.* Forestry Tasmania, Hobart, Tasmania

Forestry Tasmania (2010) *Warra single tree/small group selection trials, Warra 5D and Warra 8G, final report.* Division of Forest Research and Development, Technical Report 17/2010, Forestry Tasmania, Hobart

Garandel M, Deltombe M, Baker S, Neyland M (2009) *Observation of vascular plant seedling responses to burning and aggregated retention silviculture.* Division of Forest Research and Development Technical Report 02/2009. Forestry Tasmania, Hobart.

Grove SJ (2009). *Operational prescriptions for fuelwood and commercial firewood harvesting on State forests.* Division of Forest Research and Development Technical Report 04/2009. Forestry Tasmania, Hobart.

Grove SJ, Neyland MG (2005) How 'natural' is the response of biodiversity to clearfelling and to alternative silvicultural systems in Tasmanian wet eucalypt forest? *International Forestry Review* 7: 325. Abstract of oral presentation at XXII IUFRO World Congress, Brisbane, Queensland

Hickey JE (2005) Alternatives to clearfell silviculture in tall old-growth forests in Tasmania. *The International Forestry Review* 7: 40. Abstract of oral presentation at XXII IUFRO World Congress, Brisbane, Queensland

Howard G (2008) *Safety implications of aggregated retention harvesting.* Report to the Variable Retention Safety and Training sub-committee of the Forest Industry Safety Standards Committee

Jarman SJ, Kantvilas G (2010) *Lichen and bryophyte studies in the Warra silvicultural systems trial, 1997-2010*. Division of Forest Research and Development, Technical Report 16/2010, Forestry Tasmania, Hobart.

Koch AJ, Baker S (2008) Exploring remote methods for estimating hollow availability. In: Koch AJ, *Hollows project final report*. Report to Cradle to Coast NRM and the Forest Practices Authority. Forest Practices Authority Scientific Report 6, pp 37-56.

Law B, Law P (2010) *Baseline sampling of bats in aggregated retention coupes and other silvicultural treatments at Warra*. Unpublished report to Forestry Tasmania, 15 pp.

Leaman T, Gao R, Hickey J (2008) *Changes to oldgrowth forest management in Tasmanian State forests and the implications for the leatherwood nectar resource*. Report to the TCFA Research Implementation Committee

Leech M (2008) *Researching high-value markets for eucalypt timber from oldgrowth forests in Tasmania*. Report to the TCFA Research Implementation Committee

McElwee D, Baker S (2009) *Regeneration burn escapes into unharvested forest from aggregated retention and clearfelled coupes 2007-2009*. Division of Forest Research and Development Technical Report 15/2009. Forestry Tasmania, Hobart, Tasmania.

McLarin M (2008) *Modelling of timber yield implications of Variable Retention*. Report to the TCFA Implementation Committee.

Neyland MG, Edwards LG (2011) *Monitoring and control of browsing mammal damage to the eucalypt regeneration at the Warra silvicultural systems trial*. Division of Forest Research and Development, Technical Report 03/2011. Forestry Tasmania, Hobart, Tasmania.

Scott R (2007) *Calculating retention and influence levels for variable retention coupes in tall wet eucalypt forests*. Division of Forest Research and Development, Technical Report No. 9/2007. Forestry Tasmania, Hobart, Tasmania

Scott R, Baker S (2008) Update on variable retention research. *Forest Practices News* 8:10-11.

Strutt O (2007) Edge effects on bryophytes in the retained aggregates of a harvested wet eucalypt forest coupe in southern Tasmania. Third year project report, University of Tasmania, Hobart, Tasmania, 17 pp

Theses

Gates GM (2009) *Coarse woody debris, macrofungal assemblages, and sustainable forest management in a Eucalyptus obliqua forest of southern Tasmania*. Doctoral thesis, University of Tasmania, Hobart, Tasmania.

Hindrum L (2009) *The effects of mechanical disturbance and burn intensity on the floristic composition of two-year old aggregated retention coupes in southern Tasmania*. Honours Thesis, University of Tasmania, Hobart, Tasmania.

Neyland MG (2010) *The response of the vegetation to a range of alternatives to clearfelling of tall wet eucalypt forests at the Warra silvicultural systems trial, Tasmania, Australia*. Doctoral thesis, University of Tasmania, Hobart, Tasmania.

Conference papers

Baker SC (2007). Retaining the hollow resource in wet eucalypt forest. Presentation at the Hollows Symposium, Hobart, Tasmania, Australia, 8-9 October 2007.

Baker S (2009) Retencion variable in los bosques antiguos de Tasmania. Cuarto Seminario de Biometria y Produccion de Nothofagus, University of La Plata, Argentina

Baker S, Chuter A, Spencer C, Edwards L, Wotherspoon K, Koch A, Munks S (2008) Habitat tree retention in alternatives to clearfelling. Proceedings of the *Old Forests, New Management* Conference. Hobart, Tasmania

Baker S, Deltombe D, Garandel M, Neyland M (2009) Vascular plant seedling responses to burning and aggregated retention silviculture. Poster, 10th International Congress of Ecology, Brisbane, Australia

Baker S, Grove S (2009) Biodiversity responses to alternatives to clearfelling at the Warra Silvicultural Systems Trial, Tasmania, Australia. Oral presentation, 10th International Congress of Ecology, Brisbane, Australia.

Baker S, Grove S (2009) Biodiversity responses to alternatives to clearfelling at the Warra Silvicultural Systems Trial, Tasmania, Australia. Poster, 13th World Forestry Congress, Buenos Aires, Argentina.

Baker S, Grove S, Jones N (2010). Using beetles as a monitoring tool for aggregated retention silviculture in Tasmania, Australia. Paper presented at the 24th International Congress for Conservation Biology, Edmonton, Canada, 3-7 July 2010.

Baker SC, Grove SJ, Read SM, Wardlaw TJ (2008) Variable retention and biodiversity: Forestry Tasmania's goals and monitoring program. Proceedings of the *Old Forests, New Management* conference, Hobart, Tasmania.

Baker SC, Spencer C, Chuter A, Koch A, Edwards LG, Munks S (2008) Habitat tree retention in alternatives to clearfelling. Proceedings of the *Old Forests, New Management* conference, Hobart, Tasmania.

Baker S, Wardlaw T, McElwee D, Read S (2010) Variable retention silviculture in Tasmania: Adaptive management through research-directed monitoring of variable retention operations. Oral Presentation at annual conference of Ecological Society of Australia, Canberra, 6-10 December 2010.

Gates G, Ratkowsky D, Grove SJ (2008) How well does aggregated retention cater for early and late successional macrofungi? Proceedings of the *Old Forests, New Management* conference, Hobart, Tasmania

Grove SJ (2010) The role of long-term ecological research in guiding advances in silviculture: an example from Tasmania. Oral presentation, VI Southern Connections Congress, 15-19 February, Bariloche, Argentina.

Grove S, Baker S (2010). Keeping arthropod conservation relevant in sustainable forest management: tips from Tasmania, Australia. Paper presented at the 24th International Congress for Conservation Biology, Edmonton, Canada, 3-7 July 2010.

Grove SJ, Baker SC, Bashford R, Forster L, Bonham K, Lewis-Jones R, Brown G (2008) Early responses of ground-active beetle assemblages to clearfelling and its alternatives at Warra, Tasmania. Proceedings of the *Old Forests, New Management* conference, Hobart, Tasmania.

Grove SJ, Duncan F (2010). How conservation biology can contribute to sustainable forest management practices: case-studies from Tasmania. Oral presentation, Workshop on Forest Management and Biodiversity Conservation in Southern Cool Temperate Forests, 3-5 March, Ushuaia, Argentina.

Grove S, Hopkins A, Harrison C, Yee M, Stamm L, Wardlaw T, Mohammed C (2008) Coarse woody debris, old trees and biodiversity conservation in production forests. Proceedings of the *Old Forests, New Management* Conference. Hobart, Tasmania

Kantvilas G, Jarman J, Minchin P (2008) Lichens and bryophytes: Little plants, big message. Proceedings of the *Old Forests, New Management* Conference. Hobart, Tasmania

Koch A, Baker S (2009) Using aerial photographs to remotely assess tree cavity availability. Poster presented at the 13th World Forestry Congress, Buenos Aires, Argentina.

Lefort P, Grove SJ (2008) Early responses of bird assemblages to clearfelling and its alternatives at Warra, Tasmania. Proceedings of the *Old Forests, New Management* conference, Hobart, Tasmania

Neyland MG (2005) Seedling regeneration, growth and density of *Eucalyptus obliqua* following variable retention harvesting in wet eucalypt forests in Tasmania, Australia. Poster paper presented at the XXIII IUFRO conference, Forests in the Balance: Linking Tradition and Technology, Brisbane, Australia.

Neyland MG (2005) Understorey islands as a means of conserving structural and plant diversity within harvested wet eucalypt forests in Tasmania. Paper presented at the XXIII IUFRO conference, Forests in the Balance: Linking Tradition and Technology, Brisbane, Australia

Neyland MG (2010) Silvicultural performance of alternatives to clearfelling in lowland wet eucalypt forests: Findings from long-term research at Warra, Tasmania. Presentation to the VI Southern Connections Congress held in Bariloche, Argentina

Neyland M, Hickey J, Bauhus J, Beadle C, Davidson N, Edwards LG (2008) Stocking and early growth of the regeneration in the Warra silvicultural systems trial, Tasmania, Australia. Proceedings of the *Old Forests, New Management* conference, Hobart, Tasmania

Neyland M, Ziegeler D (2008) The impact of harvesting disturbance on the floristics of the Warra silvicultural systems trial. Proceedings of the *Old Forests, New Management* Conference. Hobart, Tasmania

Read S, Baker SC (2011) Contrasting social and ecological drivers for management change in Tasmanian forests. Abstract for symposium "Transformation in social-ecological systems", Resilience 2011 conference, Arizona, Mar 2011

Read S, Baker S, Grove S, Neyland M, Wardlaw T (2011) Silviculture guided by natural disturbance: variable retention in wet eucalypt forests. Abstract for symposium presentation, 7th International Conference on Disturbance Dynamics in Boreal Forests, Saguenay, Quebec, Canada, May-June 2011

Read SM, Grove S, Baker S (2009). Long-Term Ecological Research at Warra: science to policy, science to land management. Invited paper, 10th International Congress of Ecology, Brisbane, Australia.

Rothe A, Neyland M, Hickey J (2008) Is single tree selection suitable for Tasmania's wet eucalypt forests? Lessons from the European experience. Proceedings of the *Old Forests, New Management* conference, Hobart, Tasmania

Scott R (2008) Developing variable retention silviculture in Tasmania. Proceedings of the *Old Forests, New Management* conference, Hobart, Tasmania

Stephens H, O'Reilly-Wapstra J, Baker S, Munks S, Potts B (2008) Aggregated retention and mammal conservation. Poster presented at the 23rd Annual Conference of the Ecological Society of Australia, Sydney, Australia.

Stephens H, O'Reilly-Wapstra J, Baker S, Munks S, Potts B (2009) Aggregated retention and mammal conservation in old growth forests. Poster, 10th International Congress of Mammalogy, Mendoza, Argentina.

Yee M, Gao R, Grove SJ, Hickey J (2008) Measuring forest maturity within an experimental forest landscape to inform conservation planning in Tasmania. Proceedings of the *Old Forests, New Management* Conference. Hobart, Tasmania