



IUFRO Division 4.01 Conference

Meeting Multiple Demands for Forest Information:
New Technologies in Forest Data Gathering.

17 – 20 August 2009



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Mount Gambier – South Australia

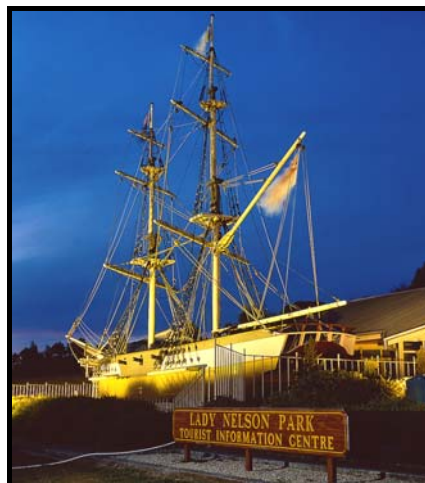
REGISTRATIONS

The Lady Nelson Visitor and Discovery Centre,
Jubilee Highway East, Mount Gambier, South Australia

SUNDAY 16 AUGUST 2009

18:00 – 20:00

- Conference Registrations.
- Wines samples from the Mount Gambier Regional Winegrowers together with samples of local produce.
- Self Guided Tour of the Discovery Centre available.
- Mount Gambier Guide will be provided including regional information on history, attractions, transport, restaurants and city map.



City of Mount Gambier
Blue Lake City

CONFERENCE PROGRAM

The City Hall, Watson Terrace,
Mount Gambier, South Australia



MONDAY 17 AUGUST 2009 – CITY HALL, MOUNT GAMBIER – “THE TECHNOLOGY”	
8:30 – 12:00	Welcome & Opening – Professor Jerry Vanclay
	Theme: New Sensor Technologies for Forest Data Collection
	Keynote Speaker / Coordinator: Dr Glen Murphy – Oregon State University ‘New Sensor Technologies for Forest Data Collection’
	Garret Mullooly – Treemetrics – ‘Application of Terrestrial Laser Scanner Technology in Pre-harvest Timber Measurement Operations in Europe’ presented by Dr Glen Murphy – Oregon State University
	Peter Carter – Fibre-gen & Dzhamal Amishev – Scion Research ‘Acoustic Technology for Forestry Applications – Latest Practical Developments’
	Dr Mauricio Acuna – University of Tasmania ‘Determining Radiata pine tree value and log product yields using terrestrial LiDAR and optimal bucking in South Australia’
	Panel Discussion Coordinator: Dr Glen Murphy – Oregon State University
12:00	LUNCH
12:45 – 16:30	Theme: Remote Sensing for Forest Management
	Keynote Speaker / Coordinator: Dr Darius Culvenor – CSIRO and Dr Nicholas Coops – University British Columbia ‘Multiple-use Forest Management: Multiple-use Remote Sensing’
	Jan Rombouts – ForestrySA ‘Experiences of the First Operational LiDAR Site Quality Assessment in South Australia’.
	Dr Christine Stone – Department of Primary Industries, NSW, ‘Crown Scale Extraction of Inventory and Health Attributes of A Pinus Radiata Plantation Using LiDAR and Digital Camera Data’
	Dr Andrew Haywood – Department of Sustainability and Environment, Victoria ‘Evaluation of Remotely Sensed Indices for Assessing Vegetation Fire Severity in Victoria, Australia, using Landsat TM and SPOT 4/5 Satellites’
	Christopher Bater – University of British Columbia, ‘Monitoring Grizzly Bear Habitat Disturbance and Phenology using Spaceborn and Ground-based Optical Remote Sensing Technologies in Western Alberta, Canada’
	Sam Coggins – Department of Forest Resources Management, University of British Columbia ‘Improvement of Low Level Bark Beetle Damage Estimates with Adaptive Cluster Sampling’.
	Panel Discussion Coordinator: Dr Darius Culvenor – CSIRO or Dr Nicholas Coops – University British Columbia
16.30 – 16:45	Dr Holger Eichstaedt – Digital Mapping Australia ‘Opportunities of Extended Waveform LiDAR Data Combined with Hyperspectral Data to a Multi-Dimensional Data Cube in Forestry Data Acquisition’
16:45 – 17.30	Poster Sessions

TUESDAY 18 AUGUST 2009 – CITY HALL, MOUNT GAMBIER – “THE APPLICATIONS”

8:30 – 12:00	<p>Theme: Precision Forestry & Value Chain Optimisation</p> <p>Keynote Speaker: Dr Mauricio Acuna – University of Tasmania and Martin Strandgard – University of Melbourne ‘Precision Forestry and Value Chain Management: Challenges and Opportunities for the Australian Forest Industry’</p> <p>Professor Peter Marshall – University of British Columbia ‘The ForValueNet Project for Boreal Forests of Canada’.</p> <p>Christian Brodbeck – Auburn University ‘Precision Forestry Development in the Southeast US: Challenges and Opportunities’</p> <p>Bertil Lidén – Skogforsk ‘The Forestry Research Institute of Sweden ‘Precision Forestry in Sweden – Focus on Customer Needs’</p> <p>Tetsuhiko Yoshimura – Shimane University ‘Assessment of Visitor Use Density to Prevent Degradations of Wilderness’</p> <p>Panel Discussion Coordinator: Mark Brown – The University of Melbourne</p>
12:00	LUNCH
12:45 – 17:00	<p>Theme: Forest Carbon Assessment and Monitoring</p> <p>Keynote Speaker / Coordinator: Prof Rod Keenan – The University of Melbourne ‘Assessing Greenhouse Gas Dynamics in Planted Forests: Constraints and Challenges’</p> <p>Rob Waterworth – DCC ‘Nationally Consistent Carbon Accounting to meet International Policy Requirements’</p> <p>Sumith Pathirana and Sisira Ediriweera – Southern Cross University ‘Vegetation Change Detection using Multi-temporal Satellite Data in the Horton Plain National Park, Sri Lanka’</p> <p>Thomas Paul – Scion, NZ ‘Combining Traditional Inventory with LiDAR to Estimate Carbon, Nationally’</p> <p>Dr Julian Fox – The University of Melbourne ‘Forest Carbon Assessment in Papua New Guinea’</p> <p>Stephen Livesley – The University of Melbourne ‘Assessing the Dynamics of Non-CO2 Greenhouse Gas Exchange in Australian Forests and Woodlands’</p> <p>Peter Ritson – Forest Products Commission, WA; ‘Carbon Assessment and Monitoring of Plantation Forests in Western Australia’</p> <p>Panel Discussion Coordinator: Prof Rod Keenan – The University of Melbourne</p>
19:00 – 22:00	<p>Conference Dinner: Mount Gambier Golf Club, Attamurra Road</p> <p>Speaker: Peter Woodgate – Chief Executive Officer Cooperative Research Centre for Spatial Information</p> 

WEDNESDAY 19 AUGUST 2009 – FIELD TRIP

08:10	Depart Lakes Resort
08:20	Depart Grand Central
08:30	Depart Commodore on the Park
9:00 – 12:30	Mount Burr Forest, Longs – SITE A Visit Clearfall Site for Terrestrial LiDAR Demonstration <ul style="list-style-type: none">• Mauricio Acuna, University of Tasmania.• Dr Glen Murphy, Oregon State University.
	Mount Burr Forest, Longs – SITE B Visit Harvesting Site at Longs. Review of Measurement and Control of Systems on Harvesting. <ul style="list-style-type: none">• Jane Charles, ForestrySA – Harvesting Background.• Andy Newell, ForestrySA – Operational Implementation of Optimisation and Harvest Technology.• Rick Murphy, HarvestCo – Contractors Perspective.• Martin Strandgard, University of Melbourne – Harvester Measurement Accuracy.• Tim Murphy, ForestrySA – Acoustic Log Sorting.• Leon Osborne & Glenn Brooks, ForestrySA – Extracting Resource Information from Harvester Data.• Jan Rombouts, ForestrySA – Linking LiDAR and Harvester Data.
11:25 – 11:45	Mount Burr Forest, Longs – SITE C <ul style="list-style-type: none">• Craig Thompson, HarvestCo – Demonstration of the worlds most productive John Deere Rubber Tyred Harvester.
12:30	LUNCH – The Valley Lake, Mount Gambier
13:30 – 16:35	City of Mount Gambier, Blue Lake <ul style="list-style-type: none">• Blue Lake Inspection and Water Issues by Jeff Lawson – Department of Water Land and Biodiversity Conservation
	Mount Gambier Forest, Airport Mount Gambier Airport Plantation (Including Afternoon Tea). P.radiata water use. Scaling & Extrapolation of Regional Plantation Water Use, Validation of Water Allocation Plan. Groundwater Dependiant Ecosystems. EP204 / PSP Growth (P.radiata / E.globulus). <ul style="list-style-type: none">• Don McGuire, ForestrySA.• Daniella Conesa, South East Natural Resources Management Board.
	Mount Gambier Forest, Airport Sustainable Forest Management by Jim O'Hehir, ForestrySA

THURSDAY 20 AUGUST 2009 – CITY HALL, MOUNT GAMBIER

8:30 – 12:00	Theme: Collect Once Use Often: Multiple Uses of Forest Data
	Keynote Speaker / Coordinator: Professor Jerry Vanclay – Southern Cross University
	Professor Valerie LeMay – University of British Columbia 'Integrating Existing Data Across Multiple Scales to Obtain Within Stand Structural Information'.
	David Mannes – Forestry Tasmania 'LiDAR: Operational Trial to Operational Reality'
	Dr Cris Brack – Australian National University / Waiariki Institute of Technology 'One Measure of Quality and Disturbance can be used to Improve Estimates of Almost Anything'
	Dr Chris Goulding – Scion Research 'Multiple Use of Data Collected from the New Zealand Indigenous Forest Plot Network'
	Tony Brown – Forests NSW 'Estimating Wood Volume in Native White Cypress Pine Forests using Airborne LiDAR and Digital Aerial Photography'
	Panel Discussion Coordinator: Professor Jerry Vanclay – Southern Cross University
12:00	LUNCH
12:45 – 14:10	Theme: Economics of Plantation Productivity Inputs
	Keynote Speaker / Coordinator: Dr Tony McRae – Southern Tree Breeding Association 'Global Perspective for Genetic Technologies'
	Dr Milõs Ivkovic – CSIRO 'Bio-Economic Modelling as a Method for Linking Genetics to Plantation Economics'
	Dr Greg Dutkowski / Dr Richard Kerr – Plantation Genetics 'Site Specific Genetics'
	Panel Discussion Coordinator: Dr Tony McRae – Southern Tree Breeding Association
14:10 – 15:10	Closing Speakers: Dr Sadanandan Nambia – CSIRO and Professor Ian Ferguson – University of Melbourne