



Forestry GIS Conference

Mapping Out NZ Forestry's Future

6 October 2010, Rotorua

SCION 
Next generation biomaterials

Meet the team



Peter Eredics

Forestry Manager, ESRI

Based in California, Peter manages ESRI's business development and marketing efforts for the global forest products industry. He has 17 years of leadership experience designing and developing GIS applications for government agencies, top-tier forestry companies and publicly funded research institutes around the world. An accomplished corporate strategist, Peter has significant experience working with senior decision makers to find solutions for complex business and land management challenges.

Prior to joining ESRI, Peter worked in variety of senior management capacities for several enterprise software development and professional services firms. He has also worked as a principal consultant in North America and throughout Asia, specialising in developing countries and countries in transition.

Currently completing an MBA from Henley Management College (UK), Peter received his degree in natural resource management with a major in forestry from the British Columbia Institute of Technology. He is a member of the Society of American Foresters, the Canadian Institute of Forestry, the International Forest Products Transportation Association, and the advisory council for California Polytechnic State University's Forestry Resources and Environmental Management department in San Luis Obispo.



Cris Brack

Chair of Forestry, Waiariki Institute of Technology

Cris's most significant research contributions have been the development of optimal sampling strategies, modelling tools, and decision-support systems for trees and associated biota at stand, landscape and continental scales. The research integrates his knowledge of and innovation in applied statistics for sampling, data acquisition from remotely sensed imagery and ground-based surveys, modelling of tree and stand dynamics, and expert and decision-support systems as integrating methods. His research has broad application in both natural, plantation and urban environments, and is novel in its integration of quantitative and qualitative information.

Cris's work has achieved significant national and international standing. It has been influential in development of the National Carbon Accounting System for Australia (winner of the Eureka Environmental Science Award), and in catalysing the development and adoption of new approaches by forest and land managers and policy makers.

In his presentation, Cris will explore the changing needs and opportunities for forest inventory practice in the precision forestry world.



Harley Prowse

Owner/Director, Geographic Business Solutions

Harley is the co-owner and a director of GBS. He has considerable experience (over 15 years) with respect to all aspects of GIS consulting, including project management, strategic planning, business analysis, user needs assessment, application design and development, and data analysis, integration and capture.

Harley has undertaken GIS consultancy for a wide range of organisations across diverse industry sectors, and has been involved with Forestry GIS, as a GIS developer and consultant, since 1995.

These days Harley's primary role is the management of GBS, a successful and growing GIS consultancy and software development business based in Auckland. GBS has a team of seven GIS consultants and developers, primarily offering services to the users of ESRI GIS software within New Zealand.



Matt Wootton

Senior GIS Analyst, Ministry of Agriculture and Forestry

Matt joined the Ministry of Agriculture and Forestry in April 2008. His role as a GIS analyst involves him assisting policy-makers with forestry-related spatial analysis, building and maintaining forest layers and providing mapping for ministry staff.

Prior to moving to New Zealand, Matt worked in Toronto for the Ministry of Municipal Affairs and Housing, where he worked on provincial plans. He has also worked for a polytechnic college in Bangalore, India.

Matt holds a degree in geography from the University of Waterloo/Leeds University (UK) and a post graduate diploma in GIS from Niagara College.



Paul Smale

Software Developer, AgResearch

One of Paul's primary roles at AgResearch is to help maintain corporate and agricultural software. He also develops software to support the scientific enterprise, writing code for native Windows, .NET, and Linux platforms.

Paul specialises in programs with high mathematical content, from GIS-enabled mashups through to image analysis software. This involves using a variety of databases including Oracle, MSSQL, Firebird, Postgres/PostGIS and SQLite/Spatialite.

At the Forestry GIS conference, Paul will demonstrate AgResearch's ETS calculator, a simple tool developed to assist forest owners in making their ETS returns.



Mary Sue Severn

Director, CRCSI New Zealand, New Zealand Geospatial Office

Mary Sue recently assumed the leadership role for the research stream of work within the New Zealand Geospatial Office. She coordinates all activities of the Cooperative Research Centre for Spatial Information (CRCSI), an Australian government funded research partnership among universities, government, and private industries for New Zealand. This work involves extensive engagement with all sectors of the geospatial industry in New Zealand.

Mary Sue has more than 20 years' extensive and diverse experience in business consulting and project management. Prior to this, she studied Radio and Television Broadcasting in her native Canada.

Mary Sue will give conference delegates an insight into the work of CRCSI, and its aims for growing New Zealand's involvement. She will also explain how the strategic goals of the New Zealand Geospatial Strategy can serve the New Zealand forestry industry.



Kim Lowell

Professor, Spatial Systems Modelling, Melbourne University/
CRCSI Programme Manager

Kim's extensive geospatial-based forestry research includes a study of relationships between digital spatial data and terrain-based data in forestry, the development of methods for the quantification of interpreter uncertainty in forest maps, the development of fuzzy surfaces to represent spatial uncertainty on forest type maps, and an examination of spatial temporal modelling techniques for forest ecosystems.

As well as having been invited to speak at a number of international forestry events, Kim has also consulted to several key programmes. These include an Australia-wide evaluation of the accuracy of vegetative change maps (Geospatial Initiative), an analysis of an existing GIS relative to present and future needs (Forestal Mininco, Chile), and the development of an operational sampling methodology for assessing the accuracy of vegetative change maps developed from satellite imagery (Bureau of Resource Sciences, Australia).

Kim will talk about the Agriculture, Natural Resources and Climate Change (ANRCC) theme in the context of natural resource management and forests. ANRCC is a major theme in the CRCSI research programme, and provides opportunities for New Zealand involvement. He will also give examples of targeted research projects undertaken by the CRCSI that have a forestry focus.



Luke Bettis

Software Developer, ATLAS Technology

Luke joined ATLAS in 2000. Since then, he has been involved in developing many of the company's forestry tools. He is currently involved in developing Acres, a web-based mapping tool to help farmers make strategic land management decisions. Being developed by Scion in collaboration with AgResearch, Acres uses GIS technology to show how introducing forestry into farming operations impacts on financial and environmental performance.

Luke is also a member of the ATLAS GeoMaster development team, specialising in GIS applications. During his time with the GeoMaster team he has been instrumental in keeping GeoMaster up-to-date with the latest releases of ARC GIS.

At the conference, Luke will give delegates a preview of the Acres tool, which uses ArcGIS Server 10 and the ArcGIS API for Microsoft Silverlight. Funded by the Ministry of Agriculture and Forestry, the tool will be available free of charge over the internet when released in mid-2011.



Barbara Hock

Scientist, Scion

Barbara has researched spatial analysis and modelling for productivity, inventory, forest ecology and environment, sustainability, health and carbon. She contributes to various fora on New Zealand's GIS data.

Barbara's recent research on demonstrating sustainability to forestry stakeholders includes the development of GIS-based visualisations.



David Palmer

Scientist/Geospatial Analyst, Scion

David has specialised in the fields of pedometrics, encompassing soil science, pedology, geographic information systems (GIS), statistics, geostatistics, spatial analysis and interpolation, and cartography. His publications include the topics of forest productivity, spatial interpolation, terrain and water-balance modelling, and forest suitability and sustainability analysis.

In 2008, David gained a PhD from the University of Waikato on modelling forest productivity. The model he developed during the course of his studies was a New Zealand first for 'national extent modelling'.