



Fall 2004

RMA Newsletter

Resource Modeling Association

www.resourcemodeling.org

Melbourne beckons!

Preparations are well underway for the **2004 World Conference on Natural Resource Modelling** that will be held at RMIT University, Melbourne, Australia on 12-15 December 2004.

The conference theme is *Understanding and Managing Complex Systems*, but papers are invited from all areas of resource modelling. Plenary talks will be given by:

Mark Burgman, University of Melbourne

Making robust decisions for species conservation: satisficing under uncertainty

Wayne Getz, University of California, Berkeley

Two new methods for analysing temporal and spatial patterns in elephants, wolves, and lesser creatures

Hugh Possingham, University of Queensland

Optimal monitoring within an environmental decision-making framework

Andre Punt, University of Washington, Seattle

The FAO Precautionary Approach after almost 10 years: Have we progressed towards implementing Simulation-tested Feedback-control Management Systems for Fisheries Management?

In keeping with the spirit of previous RMA conferences we promise an informal but intellectually stimulating program. An outing to see some Australian fauna and other social activities will also ensure that there will be plenty of opportunity to relax and network with colleagues.

A one day workshop on the mechanisms and role of density dependence in resource dynamics will be held immediately after the conference, Thursday, 16 December.

A two day postconference trip is planned subject to sufficient interest. This trip will take in the spectacular scenery of the Great Ocean Road, an extinct volcano, an

historic goldmining town, amongst other attractions. Register your interest soon as places will be limited.

More details can be found either by following the links from the RMA website or going directly to <http://www.ma.rmit.edu.au/2004RMAconference/>.

You will find all the information you need including accommodation details, registration forms, deadlines, etc. While there explore the links to Melbourne and Victoria to see what a great venue we have for the conference.

Please note

Early Registration Deadline 5 November

Abstracts due 12 November

Book your flights now before the prices increase! The conference organiser is looking forward to seeing you all in December. You may contact him with any questions.

John Hearne: +613 99252283 or rma2004@rmit.edu.au

Editors' Note for others who may have wondered:
RMIT is Royal Melbourne Institute of Technology

Conference Proceedings: Those wishing to have papers considered for a special issue of Natural Resource Modelling have a choice of two deadlines. Authors submitting full papers before 15 September will be notified of acceptance by 15 November. The alternative date is 31 December and notification of acceptance (or rejection) will be given by the end of March.

From the President

This will be my last Newsletter Note as RMA President. I step down on December 31st, and Bill Smith steps up. During my brief term as President, the RMA has continued its leadership transition from the group of applied mathematicians (Bob McKelvey, Rollie Lamberson, and Colin Clark) who were instrumental in founding our association, to a younger cohort of applied mathematicians,

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ecologists, and economists who are providing the leadership and energy to keep the RMA an exciting and relevant organization. Three or four individuals, no matter how talented and dedicated, cannot sustain an organization without fresh ideas and the active involvement of its members. The theme of my last Presidential Note is involvement and participation. Here are some specific ways you can get involved.

1. Send an email to Catherine Roberts (NRM@holycross.edu) indicating your fields of expertise and willingness to serve as a reviewer for appropriate manuscripts submitted to *NRM*.
2. Submit your next manuscript to *NRM*.
3. Attend and present a paper at one or more of the upcoming RMA Meetings (Melbourne, 2004, Arcata, 2005, Bergen, 2006).
4. Organize a session on resource modeling at the meetings of another association (math, ecology, resource economics) and consider being the editor of a special issue of *NRM* containing the papers presented at your session.
5. Email Karl (beresk@ripon.edu) or Diane (beresd@ripon.edu) Beres, co-editors of the RMA Newsletter, and provide them with a brief profile describing your research interests and the specific projects you are working on. The RMA Newsletter can be a great way to communicate with other members, get feedback, and maybe find a future collaborator.

It has been a pleasure to serve as your president and to see the continued growth in our association and *NRM*. I look forward to working with you in the future.

—Jon Conrad

Job Announcement

Humboldt State University in Arcata, CA, has a full-time, tenure-track position in Mathematics / Mathematical Modeling starting August 2005. Application deadline is November 22, 2004.

General Information may be found on the department web site: <http://www.humboldt.edu/~math/>.

Information about how to apply may be obtained from departmental chair Howard Stauffer, hbs2@humboldt.edu. HSU is an Equal Opportunity/Title IX/ADA employer.

RMA BOARD

Jon Conrad, President
Applied Economics & Mgt
Cornell University
455 Warren Hall
Ithaca, NY 14853, U.S.A.
JMC16@cornell.edu

Catherine Roberts, Director
Dept of Math & Comp
Science
College of the Holy Cross
Worcester MA 01610
U.S.A.
croberts@holycross.edu

Bill Smith, President-Elect
USDA Forest Service
Natl For Health Monitor Prog
Resrch Triangle Pk, NC
27709
U.S.A.
bdsmith@fs.fed.us

Bob Fray, Director
Dept of Mathematics
Furman University
Greenville, SC 29617
U.S.A.
Bob.Fray@Furman.edu

Kenneth S. Lyon, Treasurer
Dept of Economics
Utah State University
Logan, UT, 84322-3530
U.S.A.
klyon@b202.usu.edu

Robert R. Alexander,
Webmaster
Dept of Environmental Stud
Sweet Briar College
Sweet Briar, VA 24595
U.S.A.
ralexander@sbc.edu

Rollie Lamberson, Executive
Secretary
Dept of Mathematics
Humboldt State University
Arcata, CA 95521-4957
U.S.A.
RHL1@axe.humboldt.edu

Natural Resource Modeling
Journal:
Catherine Roberts, Editor
(contact information above)

Keith Criddle, Director
Dept of Economics
Utah State University
Logan UT 84322-3530
U.S.A.
kcriddle@econ.usu.edu

Karl & Diane Beres
Newsletter Co-editors
Dept of Math & Comp
Science
Ripon College
P.O.Box 248
Ripon, WI 54971-0248
U.S.A.
beresk@ripon.edu
beresd@ripon.edu

RMA website: www.resourcemodeling.org

Help Wanted: Volunteers Needed

The Newsletter co-editors will not be able to be at the Melbourne conference. We need some folks to cover the following items for us. We will use them in the Winter issue.

1. Someone to take some digital photos.
2. Someone to get an abstract from the student award winner, and also some biographical information. (A photo would be good, too!)
3. Someone to write an article about the meeting (500-800 words, approximately).

Don't be shy. Send email to BeresD or BeresK at ripon.edu to let us know that you can assist!

TEASER! SOME TITLES OF TALKS PLANNED FOR MELBOURNE

A memetic approach for exploring the dynamics of water use behaviour

A multi-criteria decision analysis approach to identifying important areas for conservation

A spatial physiology model for Cod in UK waters

Climate change and the game of North East Arctic Cod

Complex systems techniques in uncertainty analysis of consequences of greenhouse gas emission targets

Designing markets as management tools for complex NRM systems

Dynamic landscape population modelling

Ecological Modelling, Ecosystem Modelling, Environmental Modelling

Exploratory analyses of a forest insect outbreak system operating over landscape scales

Individual-based modelling for the spatial dynamics of tuna: rule-based vs adaptive methods

Insect population dynamics and the changing structure of agricultural landscapes

Modelling the distribution and dynamics of agricultural use of land and water resources in the Murray-Darling Basin

Operations research models for production planning in fisheries: A review

Optimal harvesting in an age-class model with age-specific mortalities; An example from Namibian linefishing

Optimisation, multi-objective decision making and strategic revegetation in fragmented landscapes

Robust monitoring designs for environmental decision-making: When the optimal strategy is not the best

Statistical methods for estimating historical forest fire frequency from multiple scar data

Theory for designing nature reserves for single and multiple species

Using a virtual ecologist to assess optimal monitoring strategies for wildlife populations

Hurry! Add yours to the list!

Put California on Your Agenda!

Plans for the **2005 World Conference on Natural Resource Modeling** are moving forward. The conference will be held on the campus of Humboldt State University, which is located in the heart of redwood country on the northcoast of California about 275 miles north of San Francisco. Plans include an opening reception to take place on the evening of June 14 followed by three days of scientific sessions on June 15, 16, and 17. The scientific sessions will be opened with a keynote address by Colin W. Clark on the topic "Worldwide Crisis in Fisheries -- The Use and Misuse of Models".

In conjunction with the meeting, we will be offering a workshop on individual-based modeling (or agent-based modeling). The focus will be on using SWARM as a modeling framework. There will be a pre-conference white water rafting outing on either the California Salmon or the Klamath River. We are also hoping to organize an afternoon outing to Redwood National Park.

The annual meeting of the Cooper Ornithological Society will overlap with our meeting and participants in either conference will be free to attend sessions of the other group. We hope to organize at least one joint invited address.

Mark your calendars, and plan to spend mid-June, 2005 in one of the most scenic areas along the Pacific Coast, and at the same time participating in a very enlightening and invigorating scientific conference.

Rollie Lamberson will be able answer any questions you may have about this meeting. Contact him at RHL1@axe.humboldt.edu

A Note about the RMA Journal

Take a look at the most recent issue of *Natural Resource Modeling*. You can view the new editorial board, which has been taking shape since Catherine Roberts became editor in January.

Special Issues: The paper publication of the special issue from the Greece RMA meeting has been delayed, but most of the papers to appear are available online at <http://math.la.asu.edu/~rmmc/>. The special issues from the Beaufort RMA meeting and the Phoenix Joint Math Meeting are coming along well, with the manuscript reviews scheduled to be completed this fall. John Tschirhart, a resource economist at the University of Wyoming, will be editing yet another special issue. This one will be on the topic of mathematical modeling of jointly determined economic and ecological systems. The papers are linked to a conference being held this November in Paris.

Please continue to encourage colleagues to begin receiving NRM by joining RMA. Better yet, convince your library to subscribe! If you'd like copies of our latest flier, send email to Catherine at NRM@holycross.edu. The flier can be sent as a PDF document or as hard-copies printed on recycled paper with our watermark (send full mailing address and quantity desired).

And, please send Catherine any suggestions you may have.