# 2002 Contents

**Volume 48, Number 1, February 2002**

<table>
<thead>
<tr>
<th>Editor’s Annual Report</th>
<th>iv</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precision of Density Estimates from Fixed-Radius Plots Compared to N-Tree Distance Sampling</td>
<td>1</td>
</tr>
<tr>
<td>V.C. Lessard, T.D. Drummer, and D.D. Reed</td>
<td></td>
</tr>
<tr>
<td>Comparing Fixed- and Variable-Base-Age Site Equations Having Single Versus Multiple Asymptotes</td>
<td>7</td>
</tr>
<tr>
<td>C.J. Cieszewski</td>
<td></td>
</tr>
<tr>
<td>Examining Different Concepts for the Development of a Distance-Dependent Competition Model for Red Pine Diameter Growth Using Long-Term Stand Data Differing in Initial Stand Density</td>
<td>24</td>
</tr>
<tr>
<td>G.R. Larocque</td>
<td></td>
</tr>
<tr>
<td>Combining Tabu Search and Genetic Algorithm Heuristic Techniques to Solve Spatial Harvest Scheduling Problems</td>
<td>35</td>
</tr>
<tr>
<td>K. Boston and P. Bettinger</td>
<td></td>
</tr>
<tr>
<td>Modeling the Joint Distribution of Tree Diameters and Heights by Bivariate Generalized Beta Distribution</td>
<td>47</td>
</tr>
<tr>
<td>F. Li, L. Zhang, and C.J. Davis</td>
<td></td>
</tr>
<tr>
<td>Designing Compact and Contiguous Reserve Networks with a Hybrid Heuristic Algorithm</td>
<td>59</td>
</tr>
<tr>
<td>D.J. Nalle, J.L. Arthur, and J. Sessions</td>
<td></td>
</tr>
<tr>
<td>Sapwood Area as an Estimator of Leaf Area and Foliar Weight in Cherrybark Oak and Green Ash</td>
<td>69</td>
</tr>
<tr>
<td>J.S. Meadows and J.D. Hodges</td>
<td></td>
</tr>
<tr>
<td>Growth and Nutritional Interactions of Nutrient-Loaded Black Spruce Seedlings with Neighboring Natural Vegetation Under Greenhouse Conditions</td>
<td>77</td>
</tr>
<tr>
<td>M. Imo and V.R. Timmer</td>
<td></td>
</tr>
<tr>
<td>Correction for Slope in Point and Transect Relascope Sampling of Downed Coarse Woody Debris</td>
<td>85</td>
</tr>
<tr>
<td>G. Ståhl, A. Ringvall, J.H. Gove, and M.J. Ducey</td>
<td></td>
</tr>
<tr>
<td>The Ratio of Live Crown Length to Sapwood Area as a Measure of Crown Sparseness</td>
<td>93</td>
</tr>
<tr>
<td>D.A. Maguire and A. Kanaskie</td>
<td></td>
</tr>
<tr>
<td>The Effect of Positional Errors on the Accuracy of Estimates in Guided Transect Sampling</td>
<td>101</td>
</tr>
<tr>
<td>A. Ringvall, G. Ståhl, and T. Lämås</td>
<td></td>
</tr>
<tr>
<td>Heritability of Ozone Sensitivity in Open-Pollinated Families of Black Cherry (<em>Prunus serotina</em> Ehrh.)</td>
<td>111</td>
</tr>
<tr>
<td>Co-integration of Timber and Financial Markets—Implications for Portfolio Selection</td>
<td>118</td>
</tr>
<tr>
<td>V-P. Heikkinen</td>
<td></td>
</tr>
</tbody>
</table>
Effects of Management on the Composition and Structure of Northern Hardwood Forests in Upper Michigan

T.R. Crow, D.S. Buckley, E.A. Nauertz, and J.C. Zasada

Forest Policies and Many Governments

G.S. Amacher

Book Reviews

The Ecology of Trees in the Tropical Rain Forest

by I.M. Turner

reviewed by R.L. Hendrick

African Rain Forest Ecology and Conservation: An Interdisciplinary Perspective


reviewed by T.R. Baker

Upcoming Reviews

Meeting Announcement

2001 Contents

Volume 48, Number 2, May 2002

Introduction

Forest Wildlife-Habitat Relationships: Introduction

S. DeStefano and R.G. Haight

Forest Wildlife-Habitat Relationships: Issues and Insights

Regional and National Issues for Forest Wildlife Research and Management

S. DeStefano

Modeling Changes in Wildlife Habitat and Timber Revenues in Response to Forest Management


Models for Mapping Potential Habitat at Landscape Scales:

An Example Using Northern Spotted Owls

W.C. McComb, M.T. McGrath, T.A. Spies, and D. Vesely

Habitat Requirements for the Conservation of Arboreal Marsupials in Dry Sclerophyll Forests of Southeast Queensland, Australia

K.R. Wormington, D. Lamb, H.I. McCallum, D.J. Moloney

Forest Structure and the Question of Scale

The Effectiveness of Stand-Level and Landscape-Level Variables for Explaining Bird Occurrence in an Industrial Forest

J.M. Hagan and A.L. Meehan

Avian Habitat Relationships at Multiple Scales in a New England Forest

S.W. MacFaden and D.E. Capen

Small Mammal Habitat Associations at Patch and Landscape Scales in Oregon

K.J. Martin and W.C. McComb
Responses of Wildlife to Natural and Anthropogenic Changes in Vegetative Cover

Floristics and Avian Community Structure: Implications for Regional Changes in Eastern Forest Composition

A.D. Rodewald and M.D. Abrams

The Effect of Gypsy Moth Defoliation on Cavity-Nesting Bird Communities

C.R. Showalter and R.C. Whitmore

Competitive Effects on Plantation White Spruce Saplings from Shrubs That Are Important Browse for Moose

S.D. Posner and P.A. Jordan

Salamander Abundance and Amphibian Species Richness in Riparian Buffer Strips in the Oregon Coast Range

D.G. Vesely and W.C. McComb

Response of Forest Floor Vertebrates to Riparian Hardwood Conversion Along the Bear River, Southwest Washington

J.G. MacCracken

Response of Wildlife to Forest Structural Stages

Bird Use of Forest Structural Classes in Grand Fir Forests of the Blue Mountains, Oregon

R. Sallabanks, R.A. Riggs, and L.E. Cobb

Influences of Hardwood Stand Area and Adjacency on Breeding Birds in an Intensively Managed Pine Landscape

J.C. Turner, J.A. Gerwin, and R.A. Lancia

Salamander Abundance in Regenerating Forest Stands on the Monongahela National Forest, West Virginia

J.P. Duguay and P. Bohall Wood

Response of Wildlife to Specific Silvicultural Treatments

Temporal Patterns in Aquatic and Avian Communities Following Selective Logging in the Upper Great Lakes Region

D.J. Flaspohler, C.J F. Huckins, B.R. Bub, and P.J. Van Dusen

Effects of Edge Contrast on Redback Salamander Distribution in Even-Aged Northern Hardwoods

R.M. DeGraaf and M. Yamasaki

The Effects of Shelterwood Logging on Bird Community Composition in the Black Hills, Wyoming

S.H. Anderson and B.J. Crompton

Use of a Landbird Monitoring Database To Explore Effects of Partial-Cut Timber Harvesting

J.S. Young and R.L. Hutto

Influence of Roads and Road-like Structures on Forest Structure and Wildlife

Roads as Edges: Effects on Birds in Forested Landscapes

Y.K. Ortega and D.E. Capen
The Effect of Forest Roads on the Reproductive Success of Forest-Dwelling Passerine Birds
D.I. King and R.M. DeGraaf 391

Reproduction of Amphibians in Natural and Anthropogenic Temporary Pools in Managed Forests
D. DiMauro and M.L. Hunter, Jr. 397

Herpetofaunal Response to Gap and Skidder-Rut Wetland Creation in a Southern Bottomland Hardwood Forest
R.B. Cromer, J.D. Lanham, and H.H. Hanlin 407

Special Structural Requirements of Selected Forest Species

Evaluation of a Winter Habitat Suitability Index Model for Elk in West-Central Alberta
P.F. Jones, K.J. Hudson, and D.R. Farr 417

Effects of Landscape and Local Habitat Attributes on Northern Goshawk Site Occupancy in Western Washington
S.P. Finn, J.M. Marzluff, and D.E. Varland 427

Roost Site Characteristics of Northern Spotted Owls in the Nonbreeding Season in Central Washington

Book Reviews

Wildlife-Habitat Relationships
by D.J. Johnson and T.A. O’Neil reviewed by R.M. DeGraaf 447

New England Wildlife: Habitat, Natural History, and Distribution
by R.M. DeGraaf and M. Yamasaki reviewed by S. DeStefano 448

Volume 48, Number 3, August 2002

Nonconstant Risk Attitudes and Timber Harvesting
J. Uusivuori 459

Causes for Continuation of State Cost-Share Programs for Nonindustrial Private Forest Landowners
S.R. Mehmood and D. Zhang 471

How Joint is Joint Forest Production? An Econometric Analysis of Timber Supply Conditional on Endogenous Amenity Values
S.K. Pattanayak, B.C. Murray, and R.C. Abt 479

A Forest-Level Bucking Optimization System that Considers Customer’s Demand and Transportation Costs
J.E. Arce, C. Carnieri, C.R. Sanquetta, and A. F. Filho 492

Competitive Capacity of Quercus rubra L. Planted in Arkansas’ Boston Mountains
M.A. Spetich, D.C. Dey, P.S. Johnson, and D.L. Graney 504
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Site Dependent Simultaneous Growth Projection Model for Pinus kesiya Plantations in Zambia and Zimbabwe</td>
<td>518</td>
</tr>
<tr>
<td>K. Eerikäinen</td>
<td></td>
</tr>
<tr>
<td>On the Optimality of a Normal Forest with Multiple Land Classes</td>
<td>530</td>
</tr>
<tr>
<td>S. Salo and O. Tahvonen</td>
<td></td>
</tr>
<tr>
<td>Optimization of Land Use in Afforestation Areas Using Evolutionary Self-Organization</td>
<td>543</td>
</tr>
<tr>
<td>N. Strange, H. Meilby, and B.J. Thorsen</td>
<td></td>
</tr>
<tr>
<td>Continuing Growth Response to Phosphate Fertilizers by a Pinus radiata Plantation over Fifty Years</td>
<td>556</td>
</tr>
<tr>
<td>J. Turner, M.J. Lambert, and F.R. Humphreys</td>
<td></td>
</tr>
<tr>
<td>Polya Posterior Frequency Distributions for Stratified Double Sampling of Categorical Data</td>
<td>569</td>
</tr>
<tr>
<td>S. Magnussen and M. Köhl</td>
<td></td>
</tr>
<tr>
<td>A Method for Characterizing and Mimicking Forest Canopy Gaps Caused by Different Disturbances</td>
<td>582</td>
</tr>
<tr>
<td>J.E. Lundquist and J.S. Beatty</td>
<td></td>
</tr>
<tr>
<td>Derivation, Fitting, and Implication of a Compatible Stem Taper-Volume-Weight System for Intensively Managed, Fast Growing Loblolly Pine</td>
<td>595</td>
</tr>
<tr>
<td>Y. Zhang, B.E. Borders, and R.L. Bailey</td>
<td></td>
</tr>
<tr>
<td>Combining Random and Systematic Search Heuristic Procedures for Solving Spatially Constrained Forest Management Scheduling Models</td>
<td>608</td>
</tr>
<tr>
<td>A.O. Falcão and J.G. Borges</td>
<td></td>
</tr>
<tr>
<td>Book Reviews</td>
<td></td>
</tr>
<tr>
<td>Terrestrial Global Productivity</td>
<td>622</td>
</tr>
<tr>
<td>Edited by J. Roy, B. Saugier, and H.A. Mooney</td>
<td></td>
</tr>
<tr>
<td>Reviewed by S. Jose</td>
<td></td>
</tr>
<tr>
<td>The Silver Lining: The Benefits of Natural Disasters</td>
<td>623</td>
</tr>
<tr>
<td>By S.R. Reice</td>
<td></td>
</tr>
<tr>
<td>Reviewed by C.J. Peterson</td>
<td></td>
</tr>
<tr>
<td>Resource Assessment of Non-Wood Forest Products: Experience and Biometric Principles</td>
<td>624</td>
</tr>
<tr>
<td>By J.L.G. Wong, K. Thornber, and N. Baker</td>
<td></td>
</tr>
<tr>
<td>Reviewed by D. Pilz</td>
<td></td>
</tr>
<tr>
<td>Upcoming Book Reviews</td>
<td>625</td>
</tr>
<tr>
<td>Erratum</td>
<td>625</td>
</tr>
</tbody>
</table>

**Volume 48, Number 4, November 2002**

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvest Scheduling with Area-Based Adjacency Constraints</td>
<td>631</td>
</tr>
<tr>
<td>M.E. McDill, S.A. Rebain, and J. Braze</td>
<td></td>
</tr>
<tr>
<td>Modeling Forest Dynamics with a Combined Matrix/Individual-Based Model</td>
<td>643</td>
</tr>
<tr>
<td>N. Picard, A. Bar-Hen, and A. Franc</td>
<td></td>
</tr>
</tbody>
</table>
A Finite Mixture Model for Characterizing the Diameter Distributions of Mixed-Species Forest Stands  
*C. Liu, L. Zhang, C.J. Davis, D.S. Solomon, and J.H. Gove*  
653

Nutrient Use Efficiency in Three Fast-Growing Tropical Trees  
*A.J. Hiremath, J.J. Ewel, and T.G. Cole*  
662

Applying Fuzzy Logic to Tree Bucking Control  
*V-P. Kivinen and J. Uusitalo*  
673

Understanding Broadscale Wildfire Risks in a Human-Dominated Landscape  
*J.P. Prestemon, J.M. Pye, D.T. Butry, T.P. Holmes, and D.E. Mercer*  
685

The Epidemiology of Pitch Canker of Monterey Pine in California  
694

Bayesian Melding of a Forest Ecosystem Model with Correlated Inputs  
*P.J. Radtke, T.E. Burk, and P.V. Bolstad*  
701

Economic Analysis of the Canada–United States Softwood Lumber Dispute: Playing the Quota Game  
*G.C. van Kooten*  
712

Periodicity of Two-Year Cycle Spruce Budworm Outbreaks in Central British Columbia: A Dendro-Ecological Analysis  
*Q-B Zhang and R.I. Alfaro*  
722

Performance Differences and Genetic Parameters for Four Coastal Provenances of Loblolly Pine in the Southeastern United States  
*V. Sierra-Lucero, S.E. McKeand, D.A. Huber, D.L. Rockwood, and T.L. White*  
732

Density and the Growth of Even-Aged Stands  
*B. Zeide*  
743

Comparative Analysis of Stochastic Models for Financial Uncertainty in Forest Management  
*A. Yoshimoto and I. Shoji*  
755

Potential Demand for Certified Wood Products in the United Kingdom and Norway  
*K. Veisten*  
767

Scale and Unit Specification Influences in Harvest Scheduling with Maximum Area Restrictions  
*A.T. Murray and A. Weintraub*  
779

**Book Reviews**

*Edited by S. Madge and P. McGowan with G.M. Kirwan*  
Reviewed by J.P. Carroll  
790

Leptographium Species: Tree Pathogens, Insect Associates, and Agents of Blue-Stain  
*Edited by K. Jacobs and M.J. Wingfield*  
Reviewed by L.G. Eckhardt  
791

Oak Forest Ecosystems: Ecology and Management for Wildlife  
*Edited by W.J. McShea and W.M. Healy*  
Reviewed by C. Harrington  
792

**Upcoming Book Reviews**  
793

**Erratum**  
793