

# The Maine Forester



2005-2006





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# DEDICATION

Each year, The Maine Forester is dedicated to an individual that has influenced the Nutting Hall community. This year The Maine Forester is dedicated to Dr. David B. Field. Throughout the years, Dr. Field has been a positive influence to students and faculty. He earned his B.S. in Forestry at the University of Maine in 1963. After graduating, he worked for the U.S. Forest Service as a forester on the White Mountain National Forest from 1963-1966. Following this, David Field continued his academic pursuits; earning a M.S. in Forest Economics from the University of Maine in 1968 and then becoming Dr. Field with a PhD from Purdue in 1974.

Dr. Field started his teaching career at Yale University as a lecturer in operations analysis from 1971-1974 before becoming the Assistant Professor of operations analysis from 1974-1976. Continuing his successful career in academia, he came to Maine in 1976 as the Associate Research Professor in forest resources with the Cooperative Forestry Research Unit. In 1981, he became the E.L. Giddings Professor of forest policy and the Department Chair in

1983. Dr. Field was Department Chair from 1983 until 1988 and from 1999 until present.

Over the course of his long and distinguished career, Dr. Field has managed to influence not only his students,

but the entire forestry community. His inspired intellect and tireless work ethic have earned him limitless respect across the board and the reputation of being one of the few to ask for a definitive answer in forest economics and policy. Though always busy with countless professional societies and his responsibilities as department chair, Dr. Field is never at a loss for time to advise a student or simply to chat with one.

Scores of students have passed through Dr. Field's classes and been encouraged by his wisdom, but the class of 2006 will be the last to experience all of his courses. Dr. Field will be retiring after the 2006 school year, and though we wish him all the best, we feel that the forestry students of the future will

certainly be missing out. On behalf of students, faculty and alumni, The Maine Forester would like to extend our deepest gratitude for his dedicated and inspiring years of service.





# COMMEMORATION

## A MEMORIAL TO DR. RAYMOND J. O'CONNOR, PROFESSOR OF WILDLIFE ECOLOGY

It is rare to find a teacher who can bring students to an elevated level of intellectual understanding, breaking the norms with which their minds are accustomed to operate. Raymond O'Connor was such a teacher. Sitting in his statistical ecology class, listening intently, trying to follow his mental excursions, we were compelled to stretch our minds to accommodate a higher and broader realm of thought. His style was distinctive. He demanded a performance from us that was beyond what was good or very good. We put our hearts into that class. Yet, far from presenting himself as a driver with a whip, he was compassionate. Seldom does one witness such effective and uniquely tough love in the classroom as we did in his class two years ago. His illness then was apparent but as yet undiagnosed. Watching him steel himself against mysterious pain and go on teaching in front of a room full of students, how could we not apply ourselves to the work, given such a display of fortitude? It was difficult at the same time to watch him grow frailer with each class meeting. There were funny moments, too, at least in retrospect: the strictly enforced no-gum-chewing rule in class; the length of the syllabus on the first day of class (16 pages); the oral exams in which he and the graduate assistant, Fred Beaudry, would institute an examination panel, daunting each student across the table with stern expressions and rigorous questioning; his light-hearted teaching when class fell on St Patrick's Day; his application of fictional "jellyblubbers" to a laboratory exercise in order to teach us the importance of a random sampling design. His humor could also be subtle. Once he made a remark about being able to identify who was walking down the hallway by the sound of their shoes. He said he had a quiet walk because of his Irish shoes.

As a highly accomplished professional, he authored many of the books on his shelves, something which could overwhelm a student sitting in his office. Yet, his soft-spoken manner could overcome the intimidation his students may have been feeling. He would address us by name in class as well greet us by name outside of class. He persisted in his work but always remained accessible.

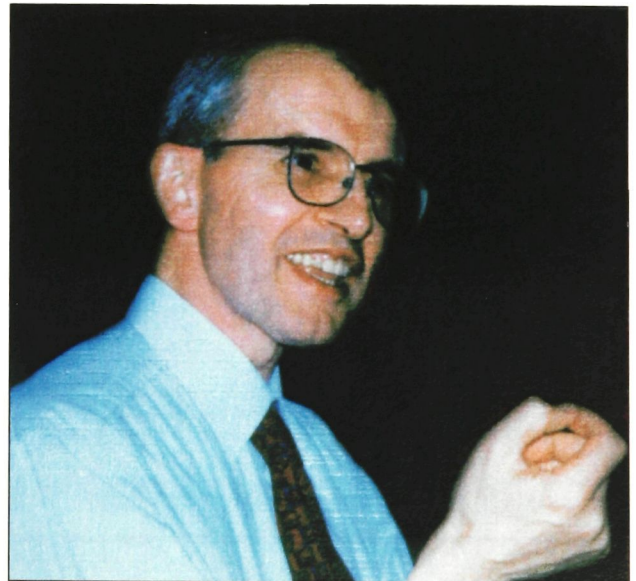
Introducing every laboratory session himself, he would then assist students individually as they worked through the lengthy calculations, providing succinct explanations of complex concepts. The students who were fortunate

enough to be his advisees might walk away from every office visit with a recommended book...

Jane Jacobs' *The economy of cities* or Bjørn Lomborg's *The skeptical environmentalist: measuring the real state of the world*. The ability of an educator to provide additional resources to a student in order to broaden their perspective is an uncommon gift. These memories do not refer to his great accomplishments, yet they describe the human being who was there for us in our journeys through life as they took place in Nutting Hall.

It is difficult to write a tribute to someone we wish we could have known better. Once, when asked if a voice recorder was permitted in lecture, he politely said no, saying "one doesn't want one's mistakes preserved for posterity." It is a pity perhaps that we cannot re-play one of his lectures and re-live him teaching us in his gentle accent when to use Welch's modified t-test, but it is no matter. For students learning to reason carefully and hoping to make a small difference for the advancement of science, a person with this much influence on their training does not truly leave. The wildlife ecology students, in particular, owe a debt of gratitude to this demanding, kind-hearted Irish American scholar. Thank you, Dr. O'Connor. We will not forget.

Sally Gilbert  
Catherine Kropp



# *Support Our Troops*

*Nutting Hall Students and Alumni Currently Serving Our  
Country in Iraq:*

*SSG David Veverka*

*SPC Jeremy Leicy*

*SGT Nathan Kay*

*SSG Robert Clifford*

*SPC Josh Caron*

*SSG Thomas Short*



Bravo Company, 3rd Battalion, 172nd Infantry Regiment (Mountain)

*To our family, friends, and the many others serving in our  
armed forces...*

*You make us proud  
Come home safe*



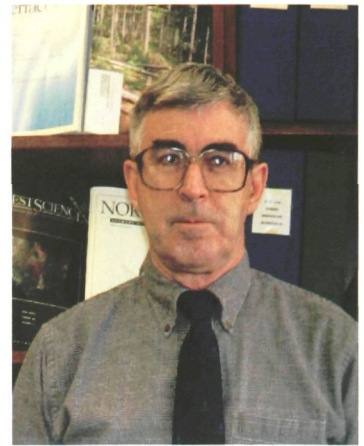
# Faculty



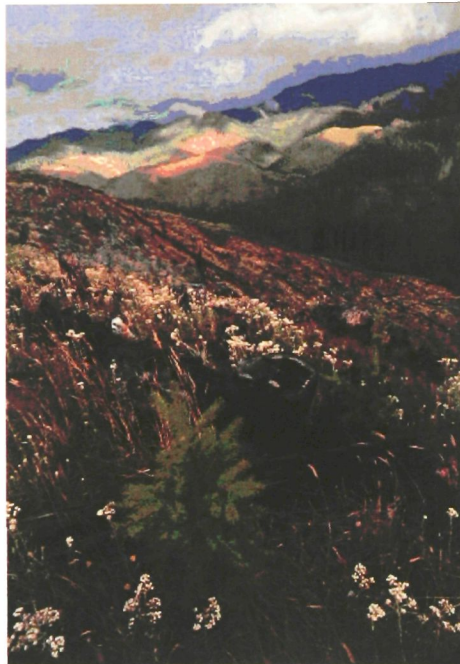
# Forest Management Faculty



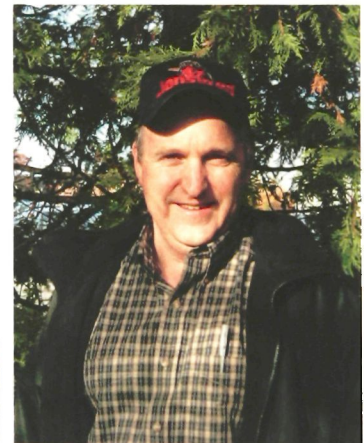
**Jeremy S. Wilson**  
 Assistant Professor of Forest Management  
 Irving Chair for Forest Ecosystem Management  
*B.S. Bowdoin College, 1987, Economics*  
*M.F. Yale University, 1993, Forest Management*  
*Ph.D. University of Washington, 1998, Silviculture*



**David B. Field**  
 E.L. Giddings Professor of Forest Policy & Professor of Forest Resources  
 Department of Forest Management Chair  
*B.S. University of Maine, 1963, Forestry*  
*M.S. University of Maine, 1968, Forest Economics*  
*Ph. D. Purdue University, 1974, Forest Economics*



**Steven A. Sader**  
 Professor of Forest Resources  
 Graduate Coordinator; Department of Forest Management  
*B.S., No. Arizona University, 1973, Forest Management*  
*M.S., Mississippi State University, 1976, Forest Management*  
*Ph.D., University of Idaho, 1981, Forest Management*



**J. Louis Morin**  
 Instructor of Forest Resources  
*B.S., University of Maine, 1976, Forestry*  
*M.S., University of Maine, 1978, Forestry*



# Forest Management Faculty



**Warren E. Hedstrom**  
Associate Professor of Forest  
Management

*B.S. University of Maine, 1961, Agricultural  
Engineering  
M.S. Cornell University, 1969, Agricultural  
Engineering  
PhD Colorado State University, 1970,  
Agricultural Engineering*



**William D. Ostrofsky**  
Henry Saunders Assistant Professor of  
Forest Resources  
Director, Professional Development  
Office

*A.A.S. University of New Hampshire, 1970,  
Forestry  
B.S. University of New Hampshire, 1973,  
Forestry  
M.S. Oregon State University, 1975, Botany  
and Plant Pathology  
Ph.D. University of New Hampshire, 1982,  
Botany and Plant Pathology*



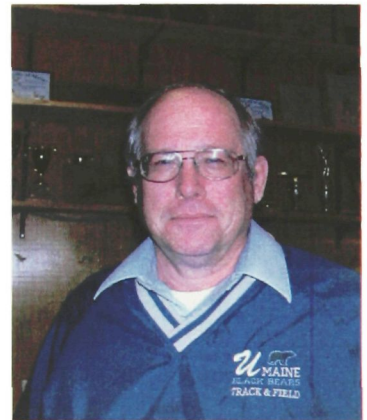
**Katherine K. Carter**  
Associate Professor of Forest  
Resources

*B.S. Central Missouri State University, 1974  
M.A.T. Duke University, 1976  
M.F. Duke University, 1978  
Ph. D. West Virginia University, 1980*



**Jeffrey G. Benjamin**  
Assistant Professor of Forest  
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*B.S. University of New Brunswick, 1997,  
Forest Engineering  
Ph. D. University of New Brunswick, 2006,  
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**Thomas B. Brann**  
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Forest Management  
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# Wood Science Faculty



**Douglas J. Gardner**  
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Science

B.S. University of Maine,  
1980, Forestry  
M.S. University of Maine,  
1981, Pulp & Paper  
Management  
Ph. D. Mississippi State  
University, 1985, Wood  
Science & Technology (minor,  
Chemistry)



**Barry Goodell**  
Professor of Wood Science &  
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B.S. University of New  
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University, 1980, Forest  
Products  
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University, Forest Products  
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Biophysics & Plant  
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**Steve Shaler**  
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Advanced Engineered Wood  
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Science & Technology  
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University, 1982, Wood  
Engineering  
Ph.D. Pennsylvania State  
University, 1986, Forest  
Resources

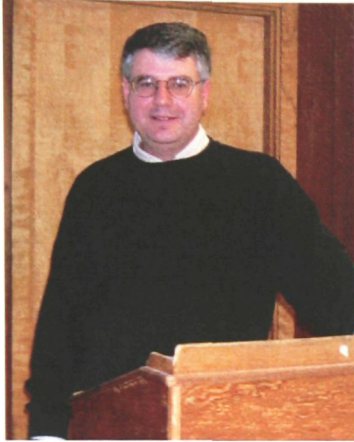


**Robert W. Rice**  
Professor of Wood Science  
and Forest Engineering

B.S., University of New  
Haven, 1974, Physics  
M.S., Virginia Polytechnic  
Inst. & State University.,  
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1988, Forest Products



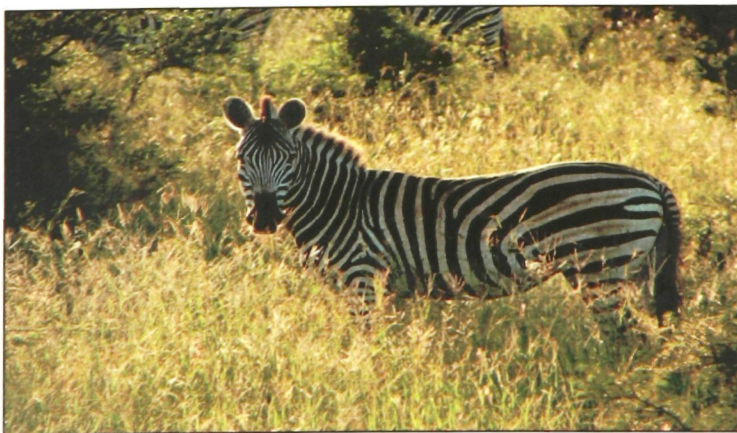
# Parks, Recreation, & Tourism



**John J. Daigle**  
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Forestry



**Jessica E. Leahy**  
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Recreation Resources  
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Ph. D. University of  
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Resource Science &  
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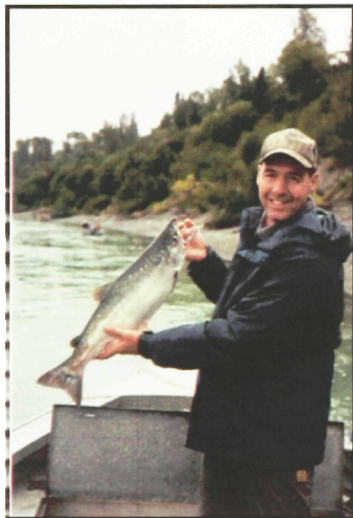
# Wildlife Ecology Faculty



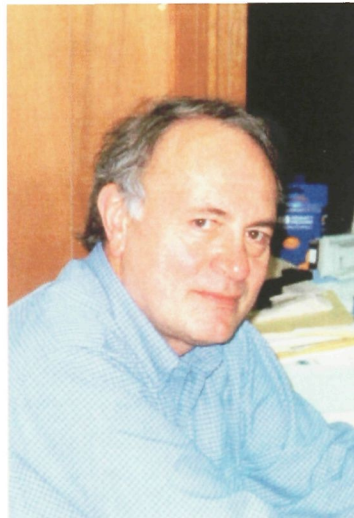
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 Leader of Maine Cooperative  
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*B.S. University of Alaska, 1968,  
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*M.S. University of Maine, 1969,  
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*Ph. D. University of Idaho, 1977,  
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**Daniel J. Harrison**  
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 Biology*  
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 & State University, 1981, Wildlife  
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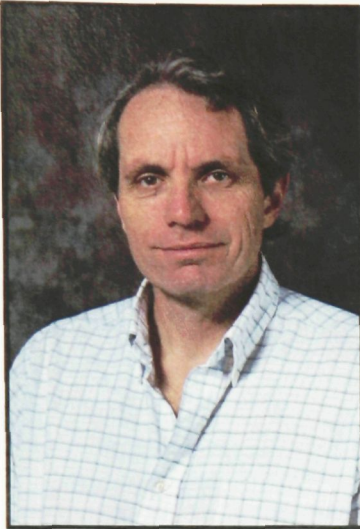
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 1968, Wildlife Biology*  
*M.S. University of Minnesota, 1970,  
 Ecology*  
*Ph. D. University of Idaho, 1974,  
 Wildlife Science*



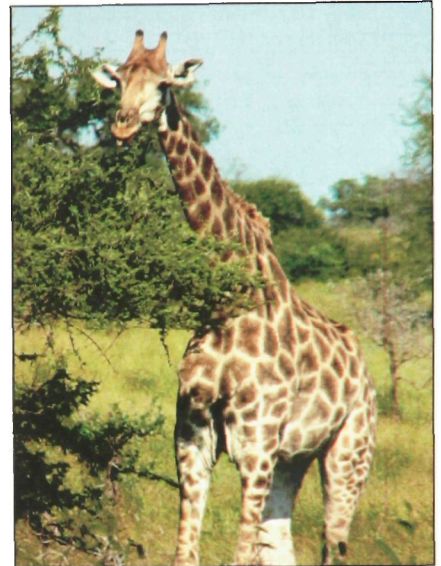
**Judith M. Rhymer**  
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*B.S. University of Manitoba, 1979,  
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# Wildlife Ecology Faculty



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*D. Phil. Oxford University, 1978,  
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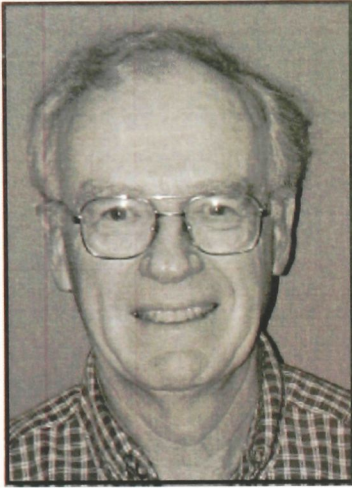


**Lindsay Seward**  
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 Island, 1998, Wildlife Biology &  
 Management*  
*M.S. University of Maine, 2002,  
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**Cynthia Loftin**  
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**Assistant Unit Leader-Maine Cooperative Fish and Wildlife Research Unit**  
*B.A. University of Virginia, 1984,  
 Biology*  
*M.S. Auburn University, 1987,  
 Wildlife Management*  
*Ph.D. University of Florida, 1998,  
 Wildlife Ecology and Conservation*

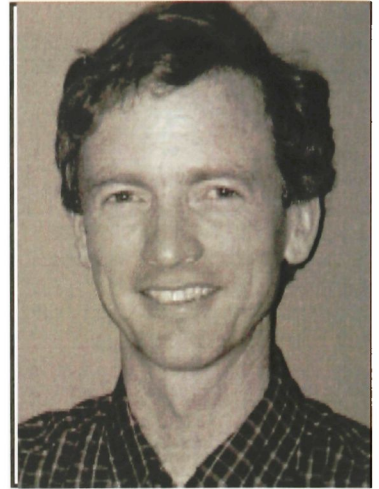
# Forest Ecosystem Faculty



**Michael S. Greenwood**

Ruth Hutchins Professor of Tree  
Physiology

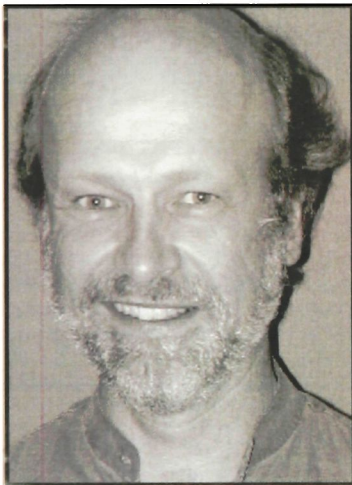
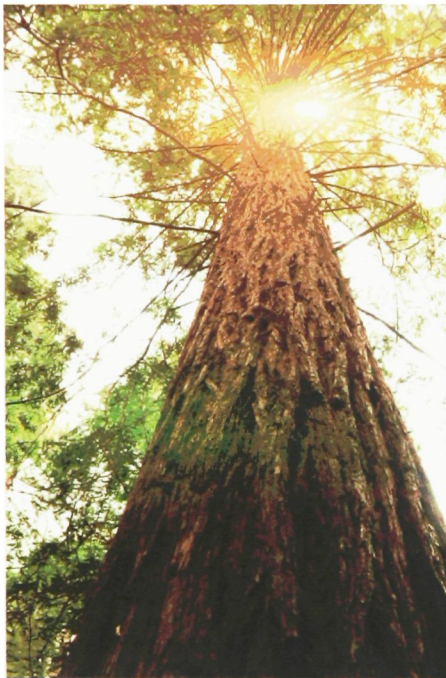
B.A. Brown University, 1963, Botany  
M.F.; M.S. Yale University, 1965, 1966  
Ph.D. Yale University, 1969



**William H. Livingston**

Associate Professor of Forest Resources  
Chair of Forest Ecosystem Science

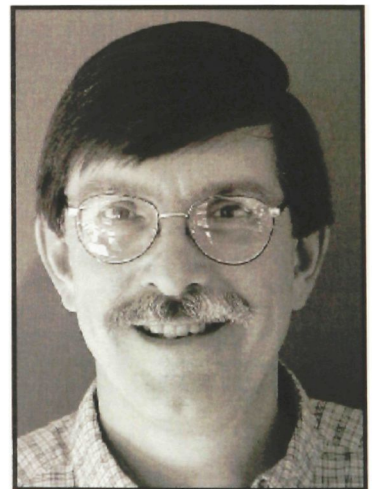
B.S. Michigan Technological Univ., 1976, Forestry  
M.S. Univ. of Idaho, 1978, Forest Science  
Ph.D. Univ. of Minnesota, 1985, Plant Pathology



**Robert S. Seymour**

Curtis Hutchins Professor of Forest  
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Resources  
M.F. Yale University, 1976, Forest Management  
Ph.D. Yale University, 1980, Silviculture



**Alan S. White**

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Silviculture

B.A. Williams College, 1973, Biology  
M.S. University of Montana, 1976, Forest Ecology  
Ph.D. University of Minnesota, 1981, Forest  
Ecology



# Forest Ecosystem Faculty



**Robert G. Wagner**

Professor of Forest Ecosystem Science  
Director, Cooperative Forestry Research  
Unit

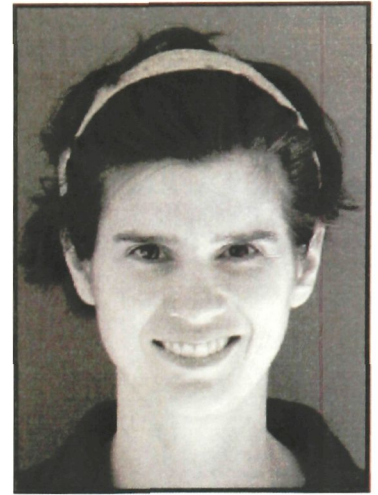
Leader, Forest Ecosystem Research  
Program

Cooperating Scientist, U.S. Forest  
Service, Northeastern Station

B.S., Utah State University, 1977, Forest  
Management

M.S., University of Washington, 1980 Forest  
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Ph.D., Oregon State University, 1989 Silviculture



**Laura S. Kenefic**

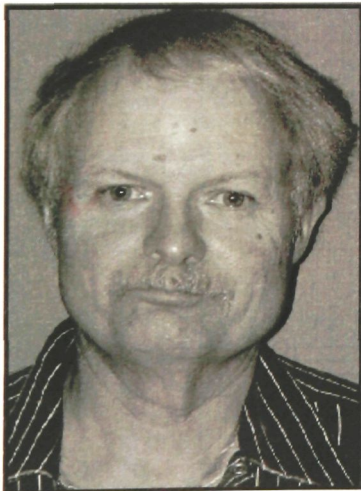
Assistant Research Professor; Research  
Forester,

USDA Forest Service, Northeastern  
Research Station NE-4155 Ecology  
& Management of Northern Forest  
Ecosystems

B.A. State Univ. of NY at Binghamton, 1992,  
Envir. Studies

M.S. State Univ. of NY College of Environ.  
Science & Forestry, 1995, Forest Resource  
Management

Ph.D. The University of Maine, 2000, Forest  
Resources



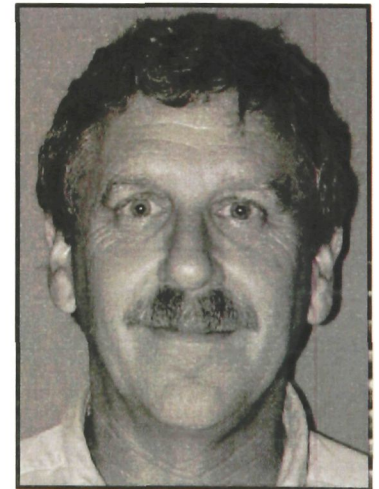
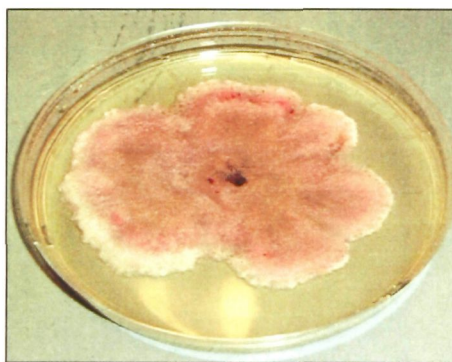
**Richard Jagels**

Professor of Forest Biology

B.S. SUNY, Syracuse, 1962, Wood Anatomy

M.S. SUNY, Syracuse, 1965, Forest Pathology

Ph.D. University of Illinois, 1968, Structural  
Botany



**Mike Day**

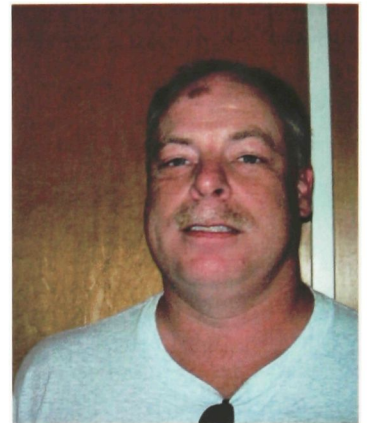
Research Scientist

# University Forest Staff



**Alan J. Kimball**

Associate Professor of Forest Resources  
*B.S., University of Maine, 1972, Wildlife Management*  
*M.S., University of Maine, 1978, Forestry*



**Chick Crockett**

Information Systems Specialist



**Francis Avery**

Scientific Forestry Technician II



**Robin Avery**

Operations Manager



# Administrative Staff



**Dolores Stone**  
Forest Management



**Cindy Paschal**  
Forest Management



**Nora Ackley**  
Wildlife Ecology



**Gail Belanger**  
Forest Ecosystem Science

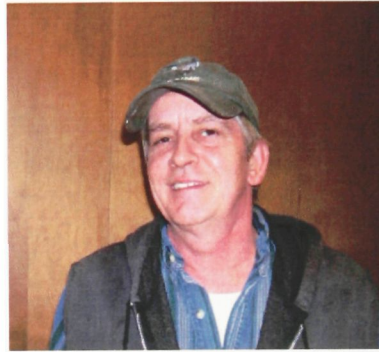


**Theresa Libby**  
Wildlife Ecology

# TECHNICAL STAFF

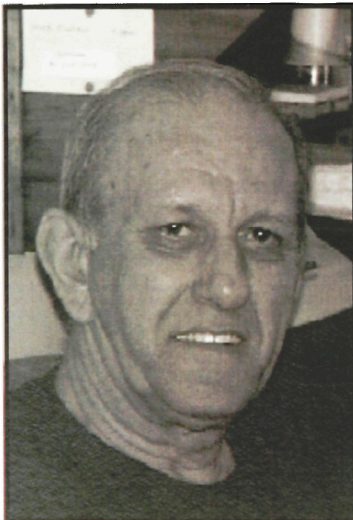


BEN DRESSER



CAL SEVERENCE

# SUPPORT STAFF



PAUL BERTLAND



ROB MEYERS



# FOREST OPERATIONS SCIENCE AT UMaine: DOES ANYONE HAVE A MAGIC 8 BALL?

BY JEFF BENJAMIN

ASSISTANT PROFESSOR OF FOREST OPERATIONS

As the “New Guy” around here, I find myself in a unique position. By default I have to be forward thinking since I know very little history of UMaine’s forestry programs or of Maine’s forest industry in general. Obviously this is a double edged sword, but



on the positive side it allows me to ask the “dumb” questions. It always helps having someone look at a situation from a different perspective and from where I am sitting there are great things on the horizon for both the program and operational forestry in general. This is probably contrary to what you have heard and read in news reports over the past few years, and most recently with the closure of the Georgia Pacific mill in Old Town, but I believe it to be true. I want to take this opportunity to outline some of my plans for the program as well as the reasons for my optimism. (This is where the Magic 8 Ball comes into play!)



Before doing that I must address one other important issue: the definition of forest operations science.

Whatever you want to call it, forest operations science, forest engineering, timber harvesting, or civil engineering “in the woods”, it is safe to say that there is often confusion surrounding just what IT actually means. How many of you have tried to describe forest operations science to a family member or friend but eventually gave up and conceded that it is basically timber harvesting? (I admit to doing the same thing myself in the past.) Although timber harvesting is integral to forest operations, it is far from the only consideration.



Forest operations science covers three main technical disciplines in the forest industry:

1. work processes involving people and machines,
2. structures used in natural environments, and
3. natural resource management planning.

Mixed into each discipline is an understanding of the physical and mechanical properties of wood and an appreciation for how operational decisions impact the natural environment. To be successful in forest operations you must also have excellent communication, project management and problem solving skills. When you take a step back and examine the technical and professional skill sets from a distance, it is no wonder that forest operations science is also viewed as a “Jack – of – all – trades” profession.





So how do I transform the above description into optimism in spite of what is occurring in the industry? It starts with the fact our appetite for wood based products continues to increase and there is no sign of that changing. From commodity products such as pulp and paper, lumber, and plywood to value added products such as furniture, yachts and composite materials, we simply need wood. Fortunately for us, wood is renewable!! The basics are there for the forest industry to thrive in Maine. I concede there are many issues and problems facing the forest industry, both here in Maine and globally, but those are operational challenges. The pulp and paper industry has been in rough shape for many years and we can expect even more closures in the coming years. With pressures from all sides, we have the choice to be innovative and take risks or go out of business. I prefer the first choice and challenge each of you to put your problem solving skills to the test.

There are so many innovations and strategies for us borrow, modify, and customize from other industries and disciplines. Think of our forests as a warehouse. Can we adopt inventory management principles from other industries to better allocate resources to increase product value? Are we getting the highest value out of our logs? Each tree can be processed into a variety of products, but how do we decide which one(s) to produce? What implications does this have for road networks, harvesting systems, and scheduling? How can we improve the flow of materials from the forest to the processing facilities? Will there be enough workers in the future to operate the increasingly high tech harvesting equipment? In a harvesting operation, the “factory” moves across space and time and the raw material is stationary. Obviously

the opposite is true in a wood products processing or manufacturing setting, but work principles are the same. Can we borrow from industrial engineering methods to study and analyze work processes in the forest to identify opportunities for improvement? At what point would it be feasible to bring cable logging to Maine? Would we have to use the same equipment as in Oregon or British Columbia?

Do I have all the answers to those questions? No. (The Magic 8 Ball wasn’t really helpful.) Should I? No, not at this point in time. I plan to be here at UMaine for a long time and I will do my best, but there is a limit to what I can do on my own. On many levels my contributions will be greater by inspiring and motivating you to address these challenges and to position yourselves within industry or government for future challenges. Is there a need for tra-



ditional courses to address the questions above and to prepare you for the “real world”? Maybe, but I think it is more important that you learn, improve and refine problem solving skills while enrolled in this program so that you are better able to handle any challenge during your professional careers.

Not surprisingly, there is no Magic 8 Ball for the forest industry. The challenges and rewards are there for you to find, so make the most of the time you have now. Determine your career direction and take advantage of the opportunities that come your way.



# Graduate Students





**Stephanie Adams**  
M.S. Student  
Forest Ecosystem Science

**Elizabeth Baldwin**  
Ph.D. Student  
Parks, Recreation and Tourism



**Diogo Baptista**  
M.S. Student  
Forestry

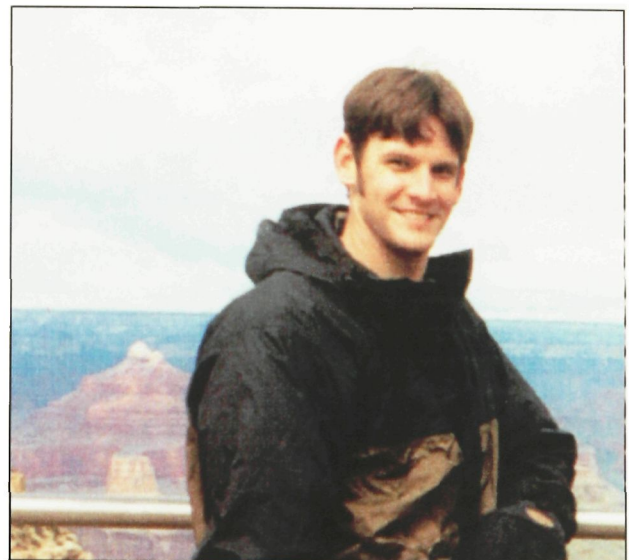


**Fredric Beaudry**  
Ph.D. Student  
Wildlife Ecology



**Suzanne Bethers**  
Ph.D. Student  
Forest Ecosystem Science

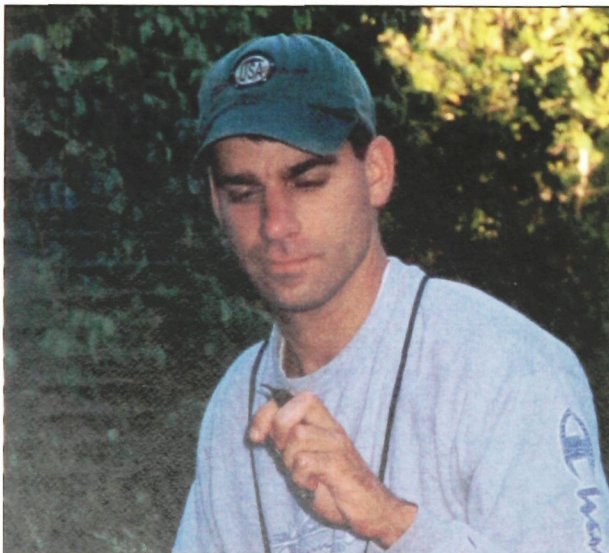
**Sean Blomquist**  
Ph.D. Student  
Wildlife Ecology





**Oscar Bustos**  
Ph.D. Student  
Forestry

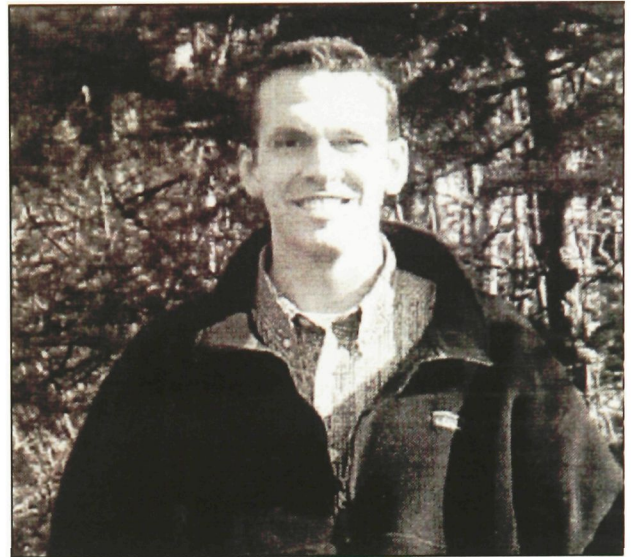
**Sarah Butler**  
M.S. Student  
Forest Ecosystem Science



**Steven Campbell**  
Ph.D. Student  
Wildlife Ecology



**Thomas Danielson**  
Ph.D. Student  
Wildlife Ecology



**Jennifer D'Appollonio**  
M.S. Student  
Forest Ecosystem Science

**Katie DeGoosh**  
M.S. Student  
Wildlife Ecology





**Sophia DeMaio**  
M.S. Student  
Forest Ecosystem Science

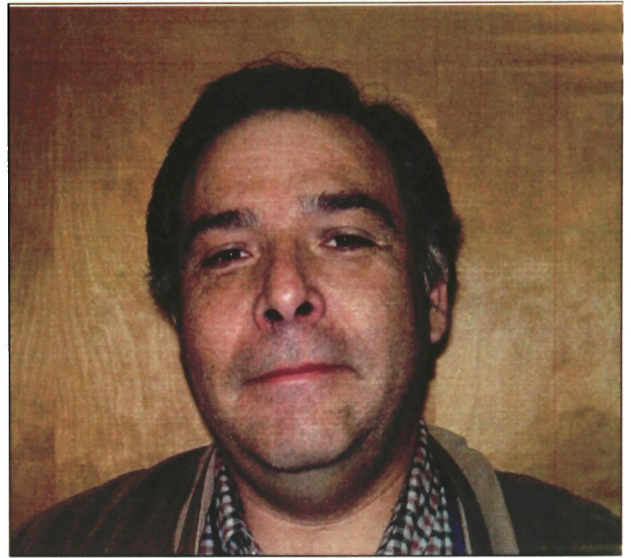
**Andrea Ednie**  
Ph.D. Student  
Parks, Recreation and Tourism



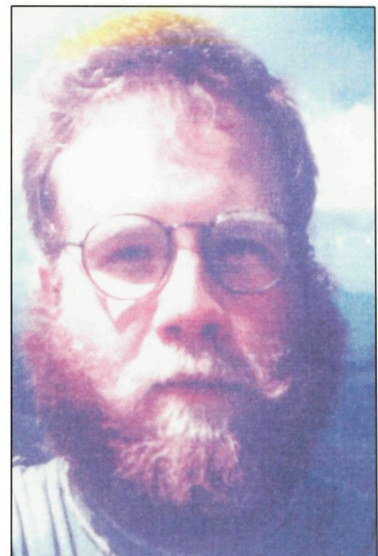
**Angela Fuller**  
Ph.D. Student  
Wildlife Ecology



**Victor Gaete-Martinez**  
M.S. Student  
Wood Science and Technology



**Jeremy Greenwood**  
M. F. Student  
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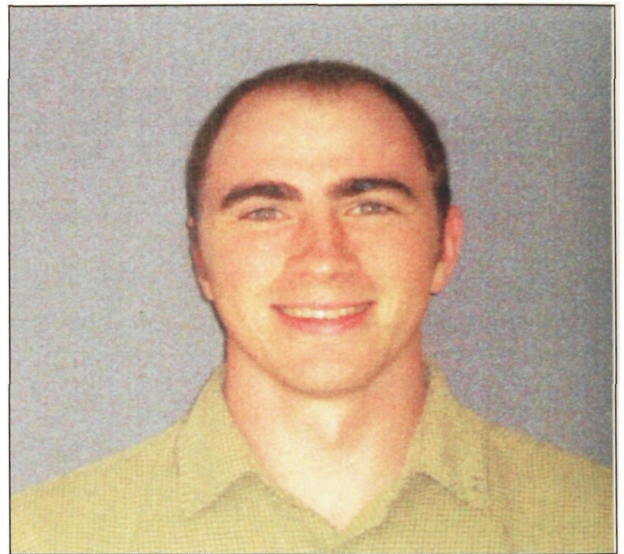


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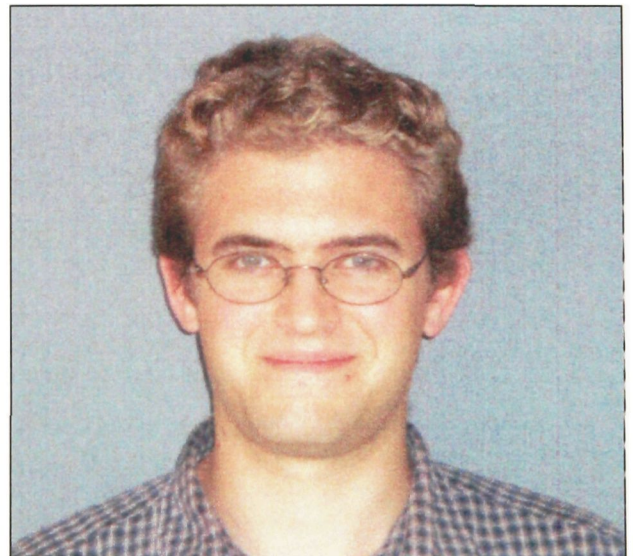


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**Peter Kenlan**  
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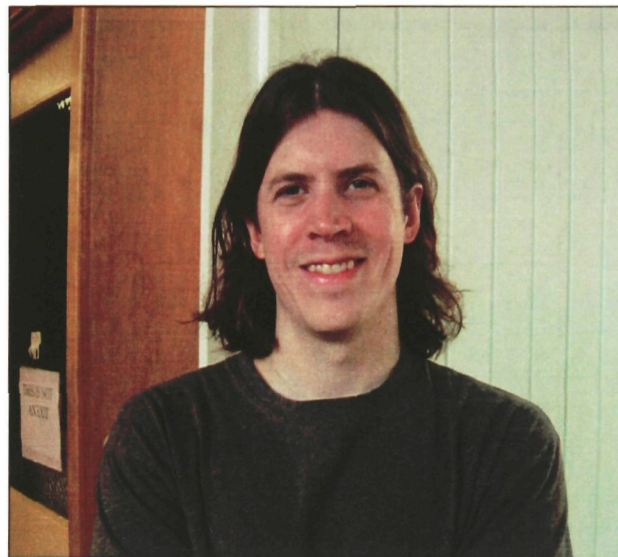
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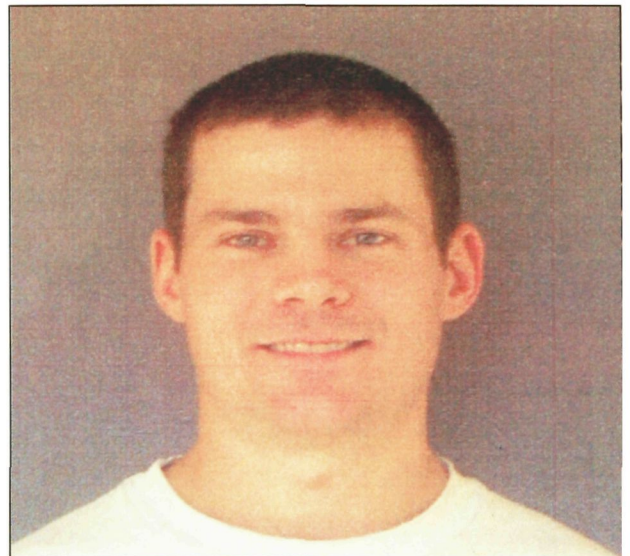


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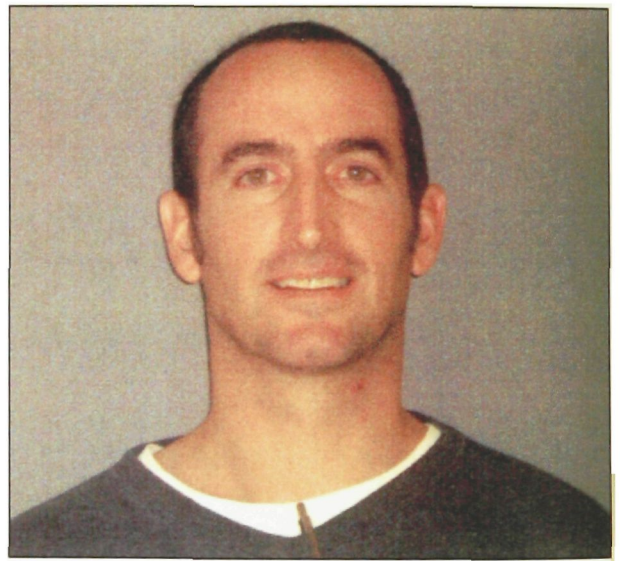
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**Natalia Politi**  
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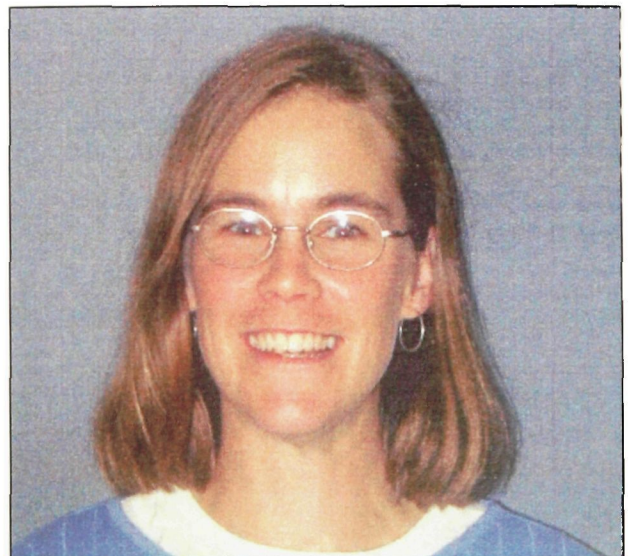


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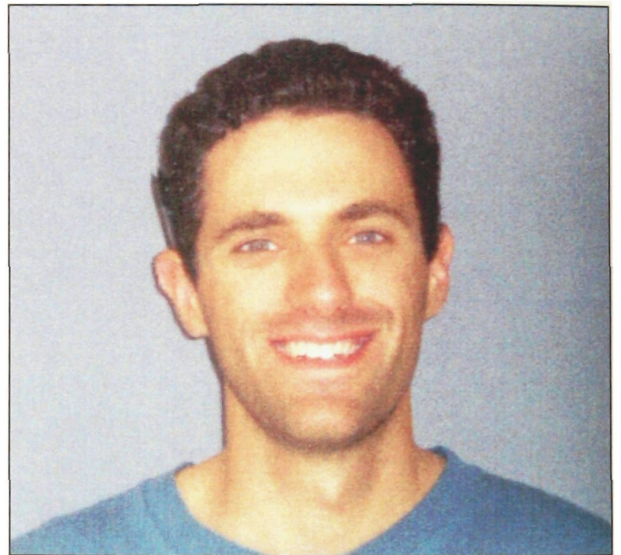
**Jesse Studley**  
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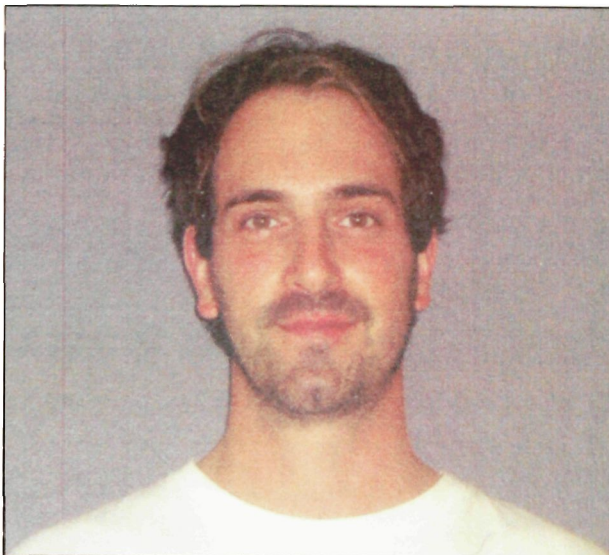


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