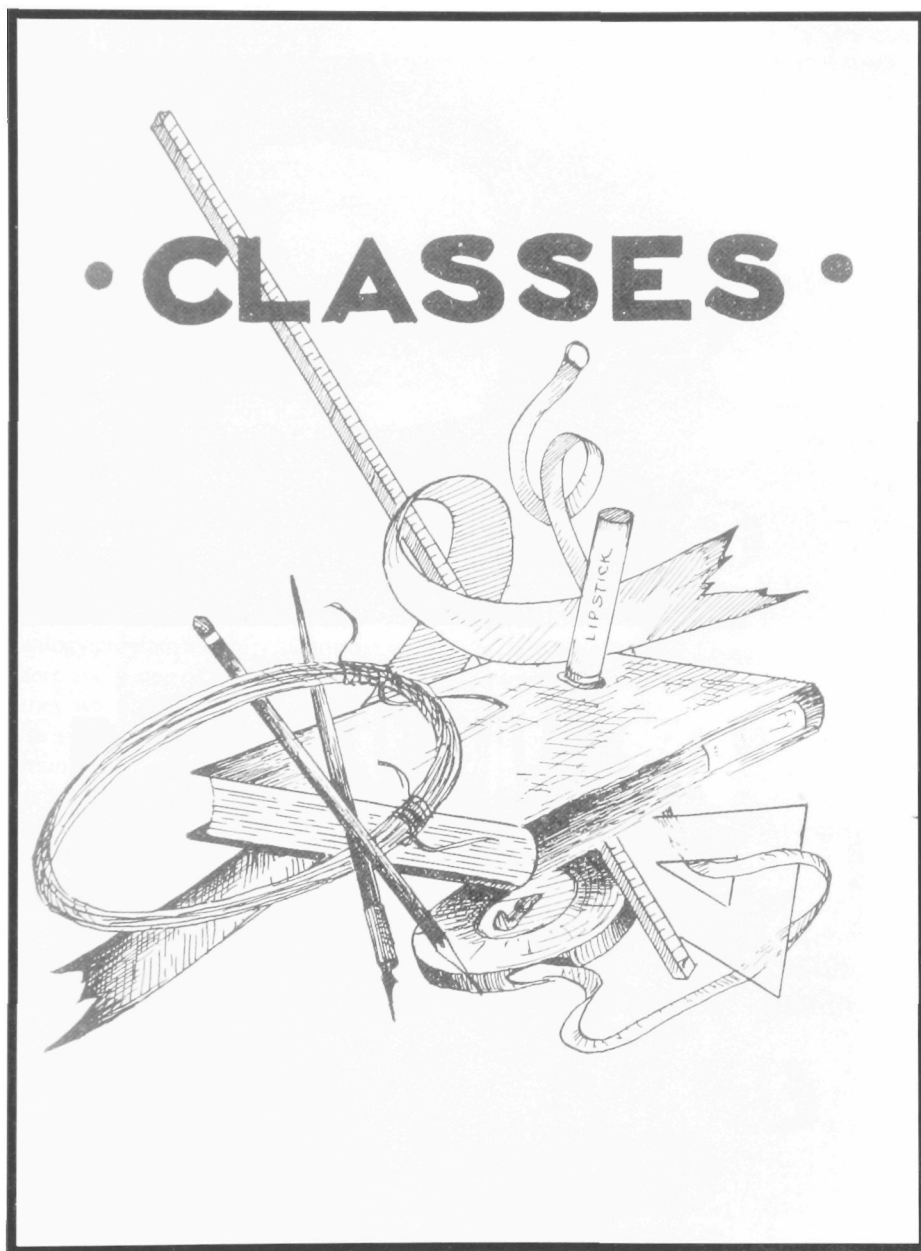
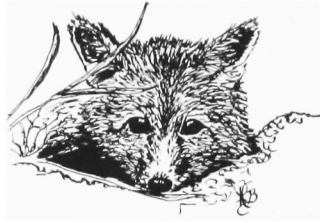


# UNDERGRADUATES



# WILDLFE ECOLOGY (WLE)





# FIRST YEAR WILDLIFER

BY COLBY W.B. BRUCHS  
WILDLIFE ECOLOGY

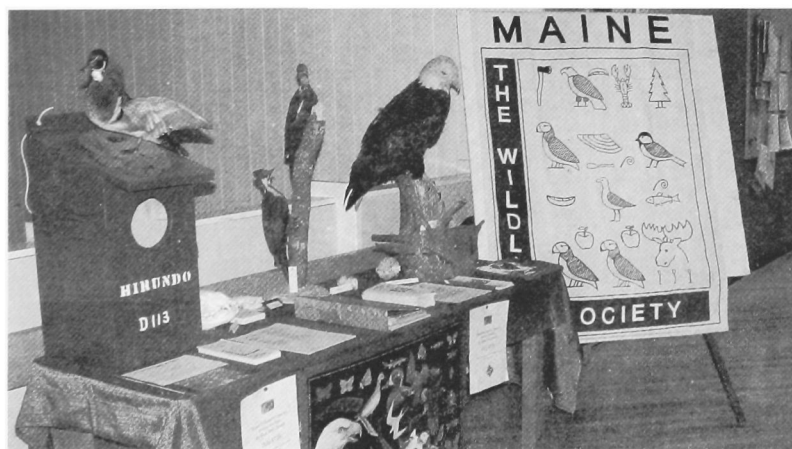
As a first year Wildlife Ecology student at the University of Maine, I have gained a much broader perspective of wildlife-related opportunities in study and occupation. The Wildlife Ecology program's faculty, courses, and fellow students have made my experience at UMaine very enjoyable. Throughout the year I have realized just how fortunate I am to be a part of this program and the group of people who take part in it.

One of the main reasons I have had a great experience is the level of confidence and encouragement that the Wildlife Ecology program's faculty has given me. They have been there every step of the way, constantly showing me that they want to help me accomplish the goals that I desire to achieve at UMaine.

The program's courses have been key to my experience this year as well. Through my studies, I have been able to see the full spectrum of opportunities that a wildlife-related education has to offer. Integral parts of recognizing the many opportunities were fieldtrips and

guest speakers. Wading through a wetland to help a Maine Department of Inland Fisheries and Wildlife Biologist band ducks, hiking an industrial forest while learning how they are managed for wildlife, and attending lectures on endangered seabird and seal research were all great means of discovering different wildlife studies and occupations.

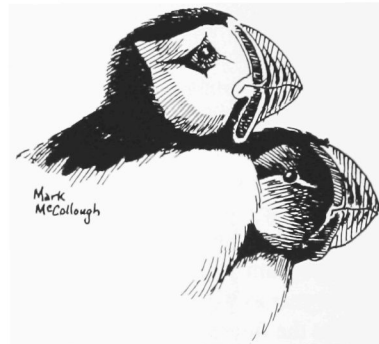
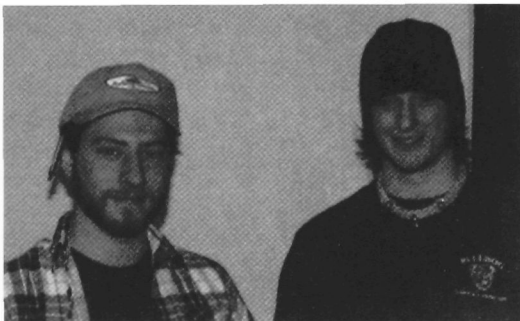
Yet the time spent with fellow students enrolled in the Wildlife Ecology program made my first year at UMaine most enjoyable. Listening to their opinions on wildlife issues and hearing their unique reasons for becoming Wildlife Ecology students has been extremely interesting and helpful. Joining the student chapters of the Wildlife Society and American Fisheries Society allowed us to share our knowledge and interests. The bottom line is that we are all here for the same reason: to gain an education in order to protect and preserve the resources we all love and respect. I simply could not have asked for a more enjoyable experience.



## MORE WILDLIFERS...



A couple of wild and crazy guys!

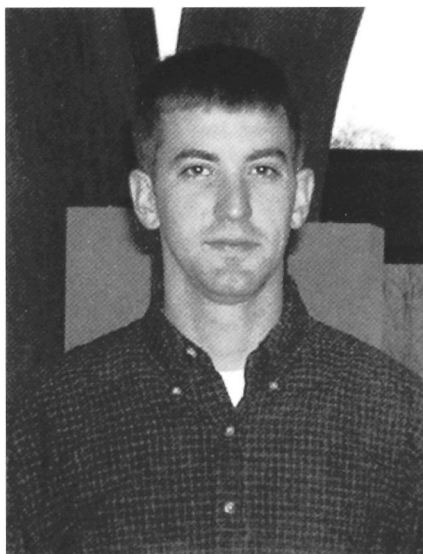


Wildlife Habitat Analysis-  
Checking in on hibernating  
black bear in the local area

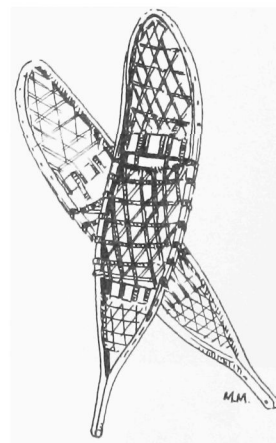




## WOOD SCIENCE AND TECHNOLOGY (WSC)



# FORESTRY (FTY)



# FIRST YEAR FORESTRY

BY KATIE MANENDE  
FORESTRY & WILDLIFE ECOLOGY

My first year in the Forestry department has been quite the experience. Coming from the state of Connecticut, I was not familiar with words like skidder, grapple, or silviculture and timber management. However, UMaine's Forestry department has changed that. After two semesters, I am comfortable talking about tools used to measure trees, management techniques, and forest vegetation. My experiences here have been nothing but positive.

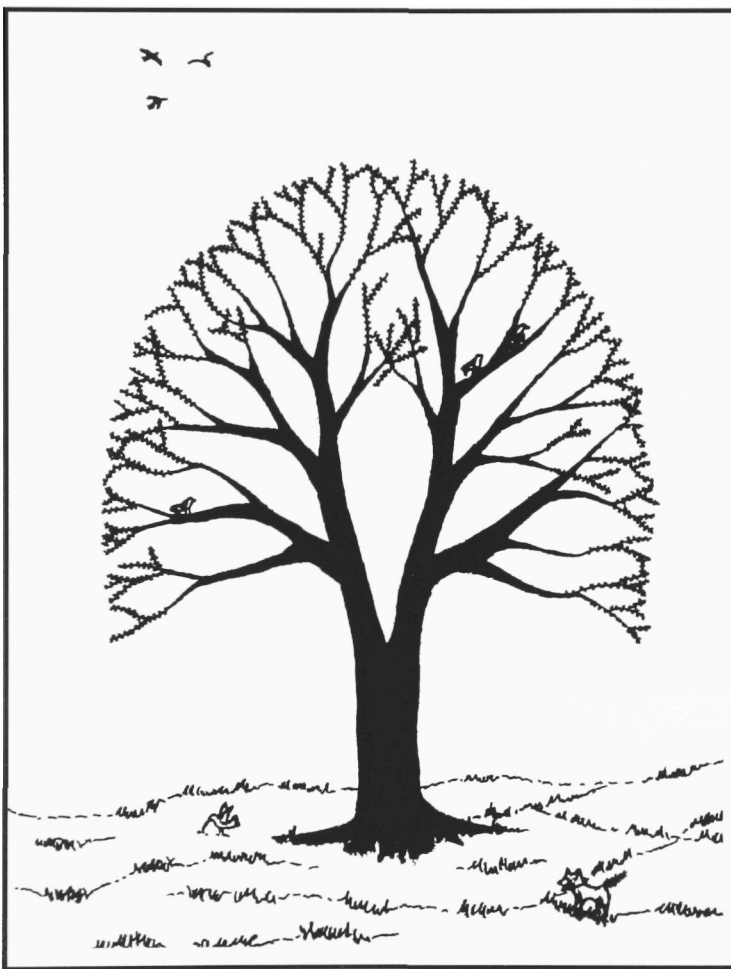
As a first year student, myself and my peers have taken classes like Forest Vegetation, Forest Biology, Intro. to Forest Resources, Forest Statistics, and Forest Measurement in order to introduce us to the field of forestry and to broaden our horizons. Obviously some first year student have more experience in the field; however everyone has something to learn in class. Each professor has their own experiences and opinions relating to what they teach us, and more often than not what we learn from them can't be found in a book. Every time I went to a Forest Vegetation Lab, I gained new insight about foreststands, ground cover and the wildlife in the area, and all of this is supplemented by what is taught in lecture.

In Forest Measurements, I have learned about DBH, live crown ratio, pacing, and many basics that will be fundamental for learning for years to come. Forestry to me isn't just something I have to learn, I genuinely

enjoy going to my classes and labs and taking in all the knowledge that I can.

In addition, fellow Forestry students (of all years) as well as professors have made my first year a joy. Every person that I have run into in the department has been nothing less than nice and is always willing to lend a helping hand. I can't express how great that has been, especially since college life during the first year is a major transition in life. It has been a privilege being in the College of Natural Sciences, Agriculture and Forestry, having classes in a building as gorgeous as Nutting Hall, celebrating the 100<sup>th</sup> Anniversary of Forestry, and being in the Forestry Pro-

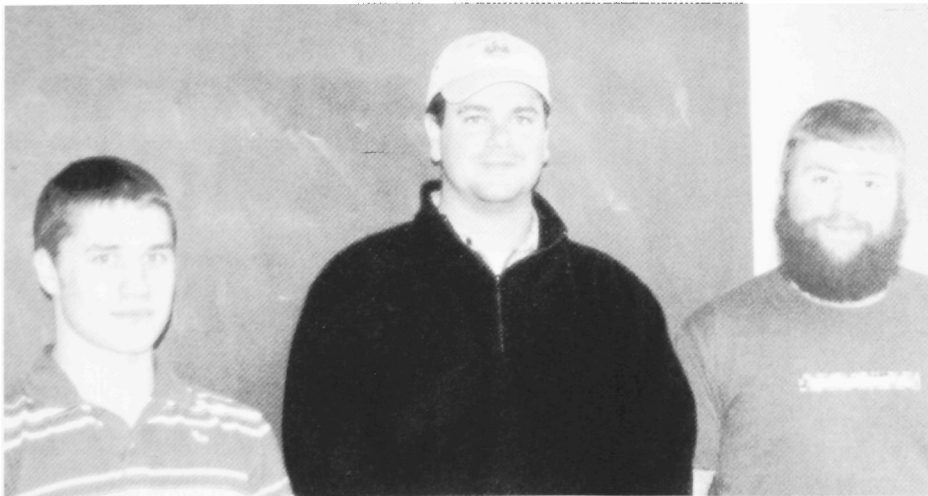
gram as well as all the clubs/groups that are related to it such as SAF, *The Maine Forester* and the Woodsmen Team. I can only hope that my next few years here will be as pleasant as my first.



## MORE STUMP-HUGGERS



## FOREST OPERATIONS SCIENCE (FSC)



# A BLURB FROM THE JUNIORS

BY HUGH VIOLETTE & MAGGIE BURKE  
FOREST OPERATIONS SCIENCE & FORESTRY

Maggie Burke: There I was...

Hugh Violette: Sitting in room 102 listening to Al Kimball discussing the role of a Forester.

M: I won't lie, he had me a little worried. I hadn't taken FTY 107 and softwoods could be distinguished from hardwoods and that was about it.

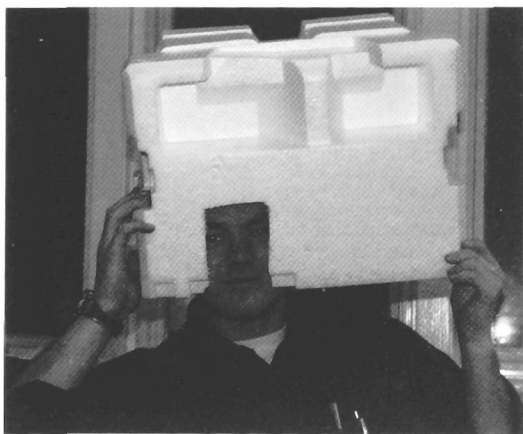
H: Right from the start Al focused on orientation, by which I mean map and compass. One of the first questions he asked the class was: where do you hold a compass in reference to your body and undoubtedly a student would shout out...

M: Where I can read it!

H: And then Al would give the classic response as to why compasses have mirrors attached to them.

M: And it's not for looking pretty. Al's always good at explaining the practical stuff in a practical manner. He kept us on our toes and a smile on our faces, and he still does.

H: While Al's class provided us with useful and common forestry know how, Dr. Brann's Forest Statistics class proved to be the real number cruncher.



This is what happens after 24 hours straight in Nutting Hall.

M: I've been known to be late to classes, but nothing compared to Brann's complete absence from class due to a little snooze and a broken choo-choo train clock!

H: For some of us the class proved to be way over our heads...

M: Yup, it didn't kick in until sophomore year, I'm sure glad it finally did though...

H: Upon entering my sophomore year, I remember how fellow forestry students forewarned me about Louis Morin...they all said his classes were extremely difficult...



M: But a wicked high score on my first Surveying test proved otherwise for the *time being*.

H: For some reason I have vivid memories of going out in the University Forest to complete and REDO labs numerous times in the freezing cold.

M: I remember the first day of lab in t-shirts, we finished up on a Saturday with hats and gloves on and snow on the ground. Remember that time Hugh, when we had to go out and GPS the trails on our survey block? We anticipated getting out there a little earlier than we did and reading the GPS screen in the near dark got kind of hard. So, having your "trusty True Value" lighter on you solved our problems and we were able to read the screen (if it was held at just the right angle). A little annoyed, we went back to Nutting Hall and told Louis about our mishap. Long story short, we both know where the light button is on the Geo Explorer and I don't plan on forgetting it anytime too soon.

H: Little did I know, a semester later we would be in that exact same block completing an intensive cruise for Andy Egan in Advanced Forest Measurements, and I must say there was no GPS used in the dark!

M: But there was a lot of "maneuvering" around the pond and all in all we managed to get all our points done...rain and a bit of shine.

H: On one late spring day in Andy's lab, I remembered one thing in particular and that was the pond...ice was still on the pond but starting to turn black. For some reason Andy was given the impression that some groups or individuals were going to walk across the ice in order to complete the cruise. So, in the very next class period Andy made a point to say that "under no circumstances" were we to go on the ice.

M: And some of us didn't! Andy's class brought Brann's and Al's classes together...felt like we were getting somewhere.

H: And somewhere was knee deep in ecology and silviculture.



M: These classes shared a lab and the workload sure did show that.

H: I must say at times it felt like we were taking classes in the Lake States...for some reason our silviculture instructor had the impression that we were in the Midwest!

M: The labs helped me demonstrate some understanding for Silviculture and Ecology, while the tests...not so much. Though "silvi-torture" and Ecology lab took its greatest toll on the Junior class's sleep schedule, we were grumpy and fed up with computers as a whole by the end of this past fall semester.

H: Both Silviculture and Ecology proved very trying at times, but in the scheme of things have proved to be key as I continue to gain knowledge and experience in the field of Forestry.

M: As we write this "article" we should be studying for Forest Economics and Watershed...well, maybe tomorrow.

H: As we have started to prepare for our first Economics exam Dr. Field has pointed out that old tests may be easy to come by but and I quote "be careful studying old tests, because sometimes I ask the same question and just change the answer." So, needless to say we shall be "very careful" in studying for our first exam!



What's wrong with this picture?

#### *Conclusive thoughts by Hugh Violette*

As I look back over the last three years, my mind keeps wandering back to the "best of times." The "best of times" would include the Forestry Summer Camp of 2002 on Mount Desert Island, the countless hours spent in the field for Surveying, the late nights dedicated towards GIS, Silviculture, and Ecology, and by far the "best of times" were spent with fellow colleagues and friends. It's hard to believe that working relentlessly on GIS, Surveying, Silviculture, and Ecology projects would be considered the "best of times," but in my mind it was those trying

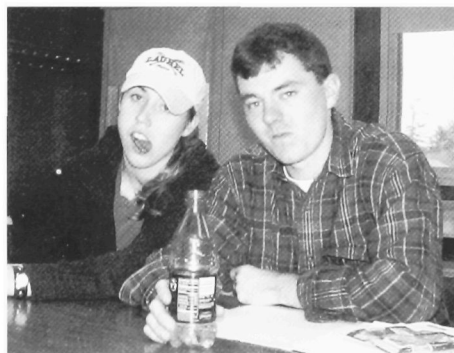
moments that have and will continue to provide me with the skills I will need to succeed in life. Regardless of what field I choose to enter, the skills I have gained will provide me with the work ethic and basic life skills so many lack.

#### *Conclusive thoughts by Maggie Burke*

I wandered into this program two years ago, as a "late starter" – having been one of the thousands of undecided students on campus, I found something I enjoyed a semester into my freshmen year, Forestry. Now with two years and a variety of courses behind me, I find that maybe I am just as undecided as I was when I first set foot on this campus. Some may say that's a horrible thing, I disagree. Though only a couple years have gone by, my eyes have thought and my mind has seen that there is a whole lot "out there." Professors have taught more than their stated course outline. They have taken the time, their time, to surpass the expected so that maybe somewhere along the way, we will too.

So, on a level somewhere between the realm of class and outer-Nutting Hall I have come to a realization that there's an unimaginable amount of places I can go with the experiences I've gained inside the "classroom," as well as out. What I've found most important over my few years in the Forestry program is that I've learned how to use my resources, my brain will never remember all that I've heard or read or seen, there is always someone willing to answer a question somewhere, that sometimes there simply is no answer but just another question, and learning is infinite as long as one desires. I've found this in offices, pass-by remarks in the hall and on the outskirts as well as deep in the woods. Learning is always about more than what it seems at the time; I guess it's never too late to realize that.

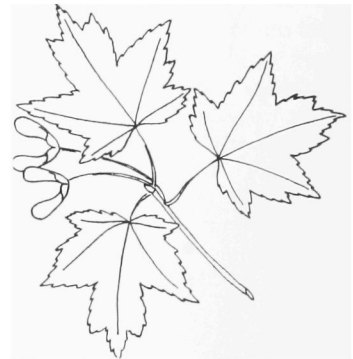
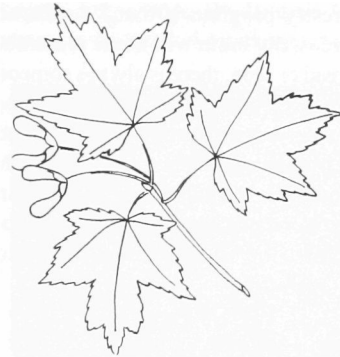
*There we were...here we go.*



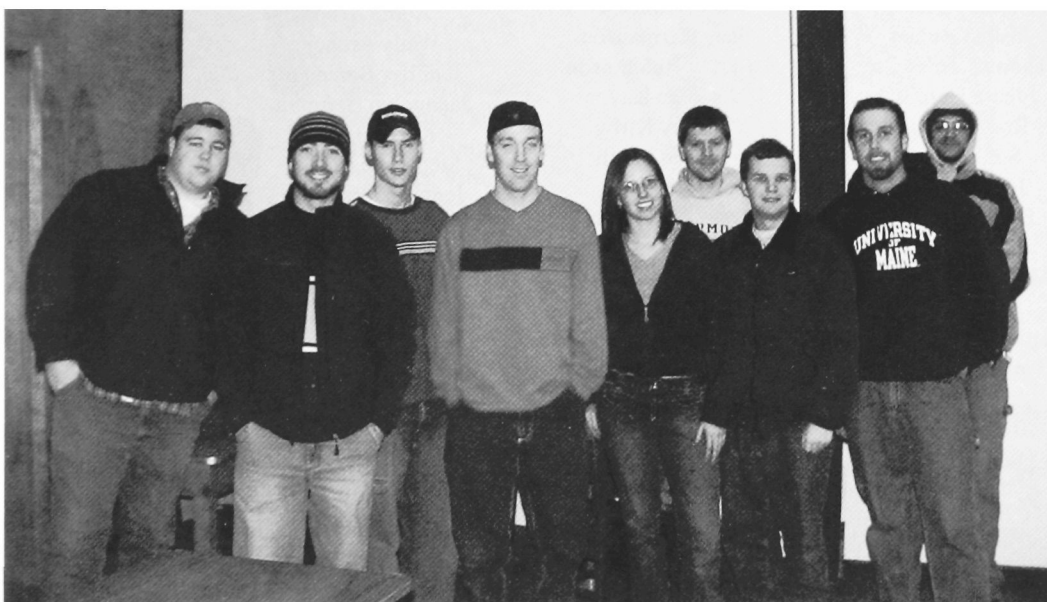
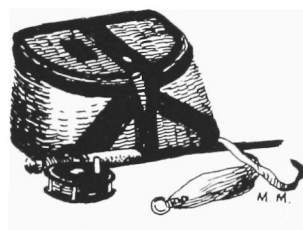
"No really we're okay."



# FOREST ECOSYSTEM SCIENCE (FES)



# PARKS RECREATION AND TOURISM (PRT)



## **FES**

Jennifer Becker  
Joshua Caron  
Keri Crean  
MorganCottle  
Brian Curry  
David Ginsberg  
JessicaHudec  
Matthew Kasson  
Catherine Kropp  
Elicia Landry  
Sarah Lemin  
Frank Mackinson  
Blanka Peridot  
Seth Rifkin  
Matthew Swartz

## **WSC**

Nicholas Baser  
Matthew Plungis  
Jason Stevens  
Keith Trask

## **FSC**

Brian Berube  
Thomas Bessey  
Joshua Bubier  
Thomas Coleman  
Jesse Duplin  
Rory Eckardt  
Sean Fallon  
John Fogarty  
Edward Fortin  
Brian Hanlon  
Matthew Howard  
Ryan Lister  
Daniel mMcCracken  
Timothy O'brien  
Aaron Richie  
Joshua Roy  
Hugh Violette  
Matthew Avery

## **FTY**

Samuel Addy  
Tyler Alexander  
Simeon Allen  
Laurie Anderson  
David Andrews

Wally Archer  
Ross Banach  
Nicholas Baser  
Jeremiah Beach  
Justin Bean  
Carl Bickford  
Jared Boucher  
Brian Brady  
Chandler Buie  
Kyle Burdick  
Devon Burgess  
Maggie Burke  
Chris Byrnes  
Jeremy Caggiano  
Jessica Campbell  
Eric Castonguay  
Bob Chandler  
Darren Cole  
Ross Congo  
Robert Cousins  
Patrick Cowan  
Jaime Critchley  
Willam Devore  
Brett Gerrish  
Douglas Greve  
Gregory Hall  
Chad Hayes  
Jake Heinemeyer  
Gretchen Heldmann  
Scott Hennessey  
Dana Hermanson  
Gregory Hutchinson  
Nathan Kay  
Gregory Kirby  
William Korth  
Brian Krause  
Emily LaPlante  
John Leso  
Paul Levesque  
Clint Libby  
Frank Mackinson  
Mark Mancini  
Kathryn Manende  
Benjamin Martinelli  
Thomas Mason  
Mark Matthews  
Wilfred Mercier  
Mark Michaud  
Brian Milakovsky  
Adam Nicak  
Benjamin Nottermann  
Joshua Noyes  
Jacob Oberlander  
Joseph Orefice

Micheal Peterson  
Tyler Petley  
John Pinette  
Stephen Pollis  
Jeremy Pontes  
Peter Rosen  
Samuel Roy  
Paul Sannicandro  
Chris Sellevold  
Andrew Shaffer  
John Shields  
Wade Shorey  
Molly Simonson  
Alexander Stace  
Joseph Stevenson  
Brian Stoddard  
Tracy Swan  
Megan Sweeney  
Timothy Taylor  
Micheal Tippet  
Jeffrey Tudor  
Aneal Virick  
Christopher White  
Christopher Wolf

## **WLE**

Tyler Alexander  
Brian Allen  
Audie Arbo  
Wally Archer  
Jennifer Belanger  
Jacquelyn Bertman  
Kerry Blenk  
Stephanie Bosley  
Jennifer Bradbury  
Colby Bruchs  
Barbara Carter  
Bob Chandler  
Jaclyn Comeau  
Chelsea Corcoran-quadt  
Keri Crean  
Nicholas Curlew  
Melanie Desjardins  
Rebecca Duda  
Anna-maria Easley  
Jason Everett  
Lindsey Fenderson  
Shannon Fitzpatrick  
Sarah Folsom  
Nicholas Fortin  
Patrick Gleason  
Jason Godbout  
Justin Gott

Tyler Grant  
Rose Graves  
Eric Hanson  
Samuel Heffner  
Darian Higgins  
Kurt Hood  
Curtis Johnson  
Nathan Kay  
Erin Kennedy  
Steven Knapp  
William Korth  
Catherine Kropp  
Kevin LaChapelle  
Timothy Lastowski  
Sarah Lemin  
Keri Lewis  
Adam Litz  
Kristopher MacCabe  
John MacLaine  
Kathryn Menende  
Mark Martin  
Keith McCullough  
Crystalina McGrail  
Adam mMcKay  
Caleb McNaughton  
Ryan Mcnelly  
Melissa Mcpherson  
Melinda Mooney  
Heidi Murray  
Carla Nelson  
Rebecca Norris  
Dave Pert  
Joseph Pratt  
Sarah Roberge  
Allan Roberts  
Beth Royce  
Matthew Russell  
Craig Salmon  
Nathan Schilingmann  
Colin Seddon  
Brian Shaw  
Wade Shorey  
Molly Simonson  
Ryan Small  
Stephanie Smietana  
Risha Sparhawk  
Sarah Spencer  
Cory Stearns  
David Veverka  
Scott Webb  
Rhonda Welcome  
Cameron Widdoes  
Jeremiah Wood  
Eilizabeth Wright

## PRT

Nicholas Ashton  
 Ian Ballinger  
 Jarred Barnes  
 William Beeaker  
 Josh Bennoch  
 Peter Bissell  
 Derek Blaylock  
 Gregory Bradford  
 Jacob Brodsky  
 Patrick Brown  
 Heather Brydon  
 Forrest Butler  
 Aaron Cabot  
 Sarah Carpenter  
 James Carroll  
 Silvia Cassano  
 Adam Chenault  
 James Conway  
 Brenden Cronin  
 John Donovan  
 Robert Dunn  
 Brook Erenstone  
 Paul Falco  
 Devin Foley  
 Matthew Galambos  
 Keith Gilmore  
 Mark Glasberg  
 Trevor Goolsby  
 Katie Gustafson  
 Michelle Haberland  
 Andrew Hopkins  
 Danson Horton  
 Betsy Janik  
 Kyle Jennings  
 Michael Kelly  
 Kristopher Kendall  
 Neil Koch  
 Jared Koelker  
 Joshua Koelker  
 Alex Kominiski  
 Matthew Lambert  
 Ryan Ligon  
 Michael Lincoln  
 Scott Malicky  
 Kevin Martin  
 Sean Mcauley  
 Eva McLaughlin



Brad Mennealy  
 Micheal Miltner  
 Sarah Moffit  
 Jonathan Moore  
 Senath Morrill  
 Anna Nelson  
 Barrett Nichols  
 Mary Nightingale  
 Melissa Niles  
 Melinda Mooney  
 Scott O'Connor  
 Lauren Pasniewski  
 Matthew Perkins  
 Christopher Pilner  
 Nathan Priest  
 Russell Prime  
 Adam Reed  
 Patricia Reidman  
 Louis Ricciardone  
 Chad Roberston  
 Silas Rossi  
 Jacob Russell  
 Jennifer Sanderson  
 Jessica Small  
 Hannah Stanley  
 Thomas Swan  
 Joshua Swierk  
 Micheal Thibault  
 Craig Thill  
 Katherine Thomas  
 Ross Timberlake  
 Johanna Van Heiningen  
 Shirlee Vito  
 Kyle Vosmus  
 Jennifer Wachtl  
 Dan Walker  
 Nicholas Walters  
 Benjamin Watson  
 Matthew White  
 Stephen Williams  
 Thomas Williams  
 Ian Woelfel  
 Mallory Young  
 Tabor Young  
 Harlan Small  
 Emma Pope-Welch  
 Kristina Wyman



# FORESTRY SUMMER CAMP 2003

BY MOLLY SIMONSON  
FORESTRY & WILDLIFE ECOLOGY

In the course catalog, the FTY 241 description begins with "Three-week intensive field training." I'd rather call it a "three-week intensive field fun." Sure it took away some of our summer, but it was worth it for the experiences. Granted, some students already had familiarity with what we did. For those with none, like me, it was a tremendous step up in realizing what forestry is all about.

As with the past several summer camps, this was broken up into two sections. For the first week we remained in the area around the university. Most of the second two weeks were spent on Mount Desert Island at the Appalachian Mountain Club (AMC) lodge on Echo Lake, with a three-day overnight trip to Jordan Island off the coast. We learned valuable skills on running equipment, chainsaw safety, cutting trees, measuring stands, playing wiffleball, and cooking mussels. Louis and Al worked hard to give us the best experience they could. The biggest reason summer camp is a success is that students get individual time with each activity. Half an hour was allotted for every piece of heavy machinery there was to operate.

The learning experiences took its toll sometimes though. My personal favorite was the bent grapple on the forwarder; surely a result of one of those "Hey what happens if I do this?" situations. No one is quite sure who did it, however there was a certain teaching assistant that came up with an equally remarkable solution. A twisted post on the bunk was all he had to show for his idea.

Of course, it wasn't all fun and games. There were some serious decisions that needed to be made. For example, Spaghettio's again or switch it up with a ham sandwich? Go watch the sunset on Cadillac Mountain or have fun in Bar Harbor? Sleep longer or actually shower? You get the point. We had the rough life.

So what about the bonding aspect? Louis told us that after living together for three weeks, the group of first year students would bond with closer friendships. This was the case sometimes, but I believe that we just learned to tolerate each other better! After all, three weeks is a long time...



"Yeah, we could be models."



"Do these jeans make my butt look big?"



Women and heavy machinery...  
...yeah we'll leave it at that.



"Are you sure this is right?"

# Graduate Students





**Pilar Andrea Palacios;** *Ph.D. Student in Wildlife Ecology*

Research focuses on the effects of different land use practices on juvenile amphibian movements and condition.

**Previous Degrees:** University of Chile, Santiago; \*Pilar is a Fulbright Scholar

**Sean Michael Blomquist;** *Ph.D Student in Wildlife Ecology*

Research focuses on the impacts of habitat alteration on components of lifetime fitness, habitat selection, and movements of wood frogs, spotted salamanders and blue-spotted salamanders.

**Previous Degrees:** B.S. Denison University, 1998; M.S. University of Nevada, Reno, 2000



**Steve P. Campbell;** *Ph.D. Student in Wildlife Ecology*

Research involves investigating the long-term effects of a selective timber harvest on the bird community of an oak-pine forest in Maine.

**Previous Degrees:** B.S. State University of New York College of Environmental Science and Forestry, Environmental & Forest Biology; M.S. New Mexico State University, Biology; M.S. New Mexico State University, Experimental Statistics

**Frederic Beaudry;** *Ph.D. Student in Wildlife Ecology*

Research focuses on determining the significance, extent, and types of threats posed by roads to the Spotted and Blanding's turtles in southern Maine.

**Previous Degrees:** M.S. Humboldt State University, Wildlife Management; B.S. Universite du Quebec a Rimouski, Biology



**Dianna M. Queheillalt;** *Ph.D. Student in Wildlife Ecology*

Research focuses on developing a regional model of bird-forest relationships as a prototype for an eventual national model to be incorporated into the USDA Forest Service's Forest Inventory and Analysis (FIA) database.

**Previous Degrees:** B.A. Michigan State University, 1993, Business Administration; B.S. California State University, 2000, Biological Conservation; M.S. California State University, 2002, Biological Conservation

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

Research involves examining the effects of scale on ecological processes and patterns to identify spatial scales relevant to Canada lynx and American marten.

**Previous Degrees:** B.S. University of Maine at Machias, 1996, Wildlife Biology; M. S. University of Maine, 1999, Wildlife Ecology





**Volker Bahn;** *Ph.D. Student in Wildlife Ecology*

Research focuses on modeling animal distributions in space and time. In addition to the usual determining factors, such as habitat characteristics and climate, the study will investigate spatial effects resulting from autocorrelation in underlying factors as well as dispersal.

**Previous Degrees:** M.S. Philipps University, 1998



**Jordan Carol Perkins;** *M.S. Student in Wildlife Ecology*

Research focuses on identification of factors that influence population growth and occurrence of the least tern in the state of Maine.

**Previous Degrees:** B.S. Louisiana State University, Wildlife & Fisheries

**John Skinner;** *M.S. Student in Wildlife Ecology*

Research focuses on examining the local life history characteristics of western North Atlantic harbor seal (*Phoca vitulina concolor*) pups during the first weeks of development along the coast of Maine.

**Previous Degrees:** B.S. Colorado State University, Wildlife Biology



**Carol Strojny;** *M.S. Student in Wildlife Ecology*

Research involves evaluating the effects of partial canopy removal on forest amphibian abundance.

**Previous Degrees:** B.S. University of Wisconsin ; \*U.S. Peace Corps Volunteer in Bulgaria from 1998-2000

**Laura Robinson;** *M.S. Student in Wildlife Ecology*

Research involves investigating the effect of snowshoe hare densities on lynx occurrence by comparing the predicted hare densities within lynx home ranges to predicted hare densities in areas where lynx do not occur.

**Previous Degrees:** Western Washington University



**Medea H. Steinman;** *M.S. Student in Wildlife Ecology*

Research focuses on statistical modeling of habitat fragmentation effects on birds.

**Previous Degrees:** B.A. University of Massachusetts



**Morgan Kelly;** *M.S. Student in Wildlife Ecology*

Research involves using DNA sequence information to evaluate range-wide taxonomy for the tidewater mucket (*Leptodea ochracea*) and yellow lampmussel (*Lampsils cariosa*) and also the use of micro satellite markers to evaluate population level variation for both species in the state of Maine.

**Previous Degrees:** B.A. Swarthmore College



**Natalia Politi;** *M.S. Student in Wildlife Ecology*

Research focuses on investigating the impact of forest ecosystem management and loss of cavity-nesting birds along an altitudinal gradient through the subtropical montane cloud forest of Northwestern Argentina (Yungas).

**Previous Degrees:** Licentiate, Universidad Nacional del Sur, Biology; M.S. Universidad Nacional de Córdoba, Wildlife Management



**Jon T. McCloskey;** *Ph.D. Student in Ecological & Environmental Science*

Research focuses on developing a vegetation succession and fire spread model for the Okefenokee Swamp, Georgia, using SPOT satellite imagery.

**Previous Degrees:** B.S. University of Montana, Wildlife Biology; M.S. Texas A&M University-Kingsville, Range & Wildlife Sciences



**Tom Danielson;** *Ph.D. Student in Ecology & Environmental Science*

Research focuses on developing an algal biological assessment tool to assess the condition of streams and rivers.

**Previous Degrees:** B.B.A. University of Massachusetts, Amherst, 1993; B.S. University of Massachusetts, Amherst, 1993, Wildlife Ecology; M.E.M. Duke University 1996; M.P.P Duke University 1996



**Emily Gaenzle Schilling;** *Ph.D. Student in Ecology & Environmental Science*

Research focuses on: 1) determining the number of potentially fishless lakes in Maine using remote sensing and geographic information systems tools that identify the geomorphic and geographical features associated with the fishless condition, 2) determining whether invertebrate communities inhabiting fishless lakes in Maine are unique compared with similar ponds containing fish, and, 3) determining the effects of stocking fish in fishless lakes over time.

**Previous Degrees:** B.A. Colgate University, Biology & French; M.S. University of Maine, Ecology & Environmental Sciences



**Stephen Kneeland;** *M.S. Student in Ecology & Environmental Science*

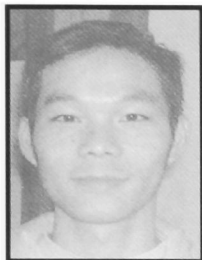
Research focuses on distribution patterns of fish hosts for threatend species of freshwater musseles in the state of Maine.

**Previous Degrees:** B.A. University of Maine, Biology

**Rastislav Lagana;** *Ph.D. Student in Wood Science*

Research focuses on measuring and modeling stress-strain behavior of wood that is subjected to long-term load and cyclic humidity conditions.

**Previous Degrees:** M.S. Technical University, Slovakia, Wood Science & Technology; Ph.D. Technical University, Slovakia, Wood Science & Technology



**Xinfeng Xie;** *Ph.D. Student in Wood Science*

Research is on wood composites and the technology used for the fabrication of composite materials.

**Previous Degrees:** Master of Engineer, PRC, China

**Shane Robert Columba O'Neill;** *Ph.D. Student in Wood Science*

Research will determine, characterize, and quantify the interfacial relationship between thermoplastic processing additives and wood particles.

**Previous Degrees:** B.S. Michigan Technological University, Wood Science; M.S. University of Maine, Forestry



**Benjamin J. Herzog;** *M.S. Student in Wood Science*

Research focuses on the characterization of the bondlines formed between both wood-wood and wood-fiber reinforced polymer (FRP) laminates as a result of the composet resin infusion (ComPRIS) process.

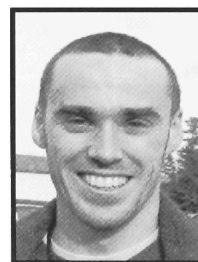
**Previous Degrees:** B.S. University of Maine, Forestry

\*University of Maine Salutatorian, Class of 2002

**Herman van Dyk;** *M.S. Student in Wood Science*

Research involves investigating the use of ultrasound for defect characterization and detection in dried lumber.

**Previous Degrees:** B.S. University of Stellenbosch



**Qingzheng Cheng;** *M.S. Student in Wood Science*

Research focuses on micro-structural changes in wood-polymer composites due to extended moisture immersion and redrying.

**Previous Degrees:** M.S. P.R. China, Wood Science and Technology



**Russell Edgar;** *M.S. Student in Wood Science*

Research involves inventing, fabricating and testing a new structural composite lumber (SCL) product using underutilized northeastern hardwoods.

**Previous Degrees:** B.S. University of Massachusetts, Building Materials & Wood Technology



**Suming Jin;** *Ph.D. Student in Forest Resources*

Research focuses on: 1) The use of Landsat TM data and high spatial resolution satellite data in forest and land cover mapping; 2) Image processing of time-series satellite data for forest change detection applications; and 3) Monitoring and multisensor in Maine's industrial forest.

**Previous Degrees:** M.S. Chinese Academy of Forestry 2001, Forest Management.



**Oscar Bustos;** *Ph.D. Student in Forest Resources*

Research involves investigating the productivity, effects and economical issues of four different forest harvesting systems: Harvester & Forwarder, Farm-Tractor, Skidder and Bulldozer.

**Previous Degrees:** B.S. University of Talca, Chile; M.Sc. Oregon State University, Forest Engineering



**Stephanie Phillips;** *Ph.D. Student in Forest Resources*

Research involves investigating forestry best management practices, including the creation of a soil erosion hazard map for the state of Maine.

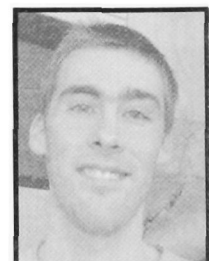
**Previous Degrees:** B.S. University of Maine; M.S. University of Maine



**Mike R. Saunders;** *Ph.D. Student in Forest Resources*

Research focuses on the investigation of three-dimensional (3D) forest structure and how it is affected by silvicultural prescription in the Penobscot Experimental Forest in central Maine.

**Previous Degrees:** B.S. Iowa State University, Forestry; B.S. Iowa State University, Fisheries & Wildlife Management; M.S. University of Minnesota, Forest Resources



**Kevin Michael Todd;** *M.S. Student in Forestry*

Research involves an assessment of the factors affecting raw material inventory levels of pulp mills in the Northeastern United States.

**Previous Degrees:** B.S. University of Maine, Forestry

**Erin Small; M.S. Student in Forestry**

Research involves investigating the vegetation growth following the 1977 Baxter State Park forest fire.

**Previous Degrees:** A.A. Sterling College, Natural Resource Management & Forestry; B.S. Sterling College, Wildlands Ecology & Management



**Jacob W. Metzler; M.S. Student in Forestry**

Research involves exploring the utilization of IKONOS and Landsat ETM+ satellite data to assess regeneration conditions using regression with the goal of providing a unique data layer to assist in managing forest stands.

**Previous Degrees:** B.S. University of Maine, Forestry

**Michael C. Eckley; M.S. Student in Forestry**

Research involves investigating aesthetic values associated with small-scale forest operations.

**Previous Degrees:** B.S. West Virginia University, Forestry



**Jennifer L. Brickey; M.S. Student in Forestry**

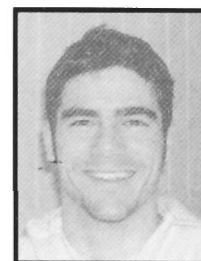
Research involves investigating the management and harvesting of farmers woodlots in Maine, New Hampshire, and Vermont.

**Previous Degrees:** B.S. Unity College, Forestry

**Brian Schneider; M.S. Student in Forestry**

Research involves investigating scale issues associated with the management of small, non-industrial, private woodlands.

**Previous Degrees:** B.S. University of Vermont, Forestry



**Jesse St. Clair Studley; M.S. Student in Forestry**

Research focuses on the scale of sustainable forestry and the economic implications that should be considered with it.

**Previous Degrees:** B.S. University of Maine, 2001, Forest Ecosystem Science



**Raymond Ilg; Masters of Forestry Student (M.F.)**

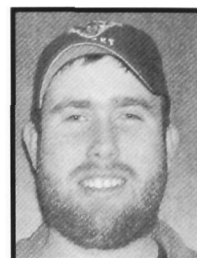
Research focuses on investigating policy issues associated with Colorado's Forests.

**Previous Degrees:** B.A. Ithaca College, Business & Politics

**Jason S. Lyle; Masters of Forestry Student (M.F.)**

Research focuses on private landowners opinions, attitudes and beliefs towards public use of their land.

**Previous Degrees:** B.S. University of Maine, Parks, Recreation, & Tourism



**Robert F. Sproule; Masters of Forestry Student (M.F.)**

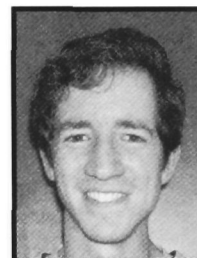
Research will focus on reviewing the history, political climate, environmental issues, and economics surrounding plantation forestry in the United States, and determining if plantation forestry is under utilized based on society's social and economical goals.

**Previous Degrees:** Fordham University

**Stephen D Peck; Masters of Forestry Student (M.F.)**

Research focuses on the American chestnut blight fungus and the reintroduction of a blight resistant American chestnut to Maine's forest.

**Previous Degrees:** B.B.A. College of William & Mary



**Robert Justin DeRose; M.S. Student in Forest Ecosystem Science**

Research will focus on investigating the relationships between structure, leaf area, and relative density in even-aged spruce-fir forests of Maine.

**Previous Degrees:** B.S. Utah State University, Forestry

**Margaret Helen Ward; M.S. Student in Forest Ecosystem Science**

Research focuses on a comparison of needle anatomy in reaction to photosynthetic rates of red spruce.

**Previous Degrees:** B.A. Ithaca College



**Allison Kanoti;** *M.S. Student in Forest Ecosystem Science*

Research will focus on the Balsam woolly adelgid, *Adelges picea*, and it's effects on tree growth

**Previous Degrees:** B.S. University of Vermont, Forest Biology; A.E. Vermont Technical College, Civil Engineering Technology



**Keith Kanoti;** *M.S. Student in Forest Ecosystem Science*

Research involves examining the effects of different soil temperature and moisture regimes on the germination and early survival of Acadian and exotic tree species.

**Previous Degrees:** B.S.F. University of New Hampshire

**Stephanie Lynn Adams;** *M.S. Student in Forest Ecosystem Science*

Research involves examining physiological causes for the decline in photosynthetic capacity in red spruce with age.

**Previous Degrees:** B.S. Stockton State College, Environmental Science.



**Spencer R. Meyer;** *M.S. Student in Forest Ecosystem Science*

Research focuses on using leaf area as a growth predictor of red spruce (*Picea rubens*) and balsam fir (*Abies balsamea*) in managed stands in Maine.

**Previous Degrees:** B.A. Dartmouth College

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

Research focuses on examining the forest disturbance history in old-growth forests of the southern Appalachian Mountains.

**Previous Degrees:** B.S. University of Indiana, Environmental Science



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

Research focuses on the exotic invasive plant species, *Barberis thunbergii* (Japanese barberry). Experiments will be conducted to assess the effectiveness of a range of invasive control methods to return Monhegan Island (ME) forest to a natural state.

**Previous Degrees:** B.S. University of Maine at Machias, Environmental Studies – Conservation Biology





**Andrew Brett Reinmann;** *M.S. Student in Forest Ecosystem Science*

Research involves investigating the effects of harvesting on nutrient cycling, soil productivity and red spruce radial growth in spruce-fir stands in Maine.

**Previous Degrees:** B.S. Binghamton University, Environmental Studies

## Graduate Students not Pictured

### Wildlife Ecology:

Marcy Nelson

Rebeca Chalmers

Dave Patrick

Elizabeth Baldwin

Philip Wick

Katie DeGoosh



### Forestry:

Elizabeth Baldwin

Diogo Baptista

Silvia Cordero-Sancho

Jamie Hannon

Elizabeth Munding

Jungil Son

Kristen Hoffmann

### Forest Ecosystem Science:

Damion Cirelli

Alex Elvir

Shawn Fraver

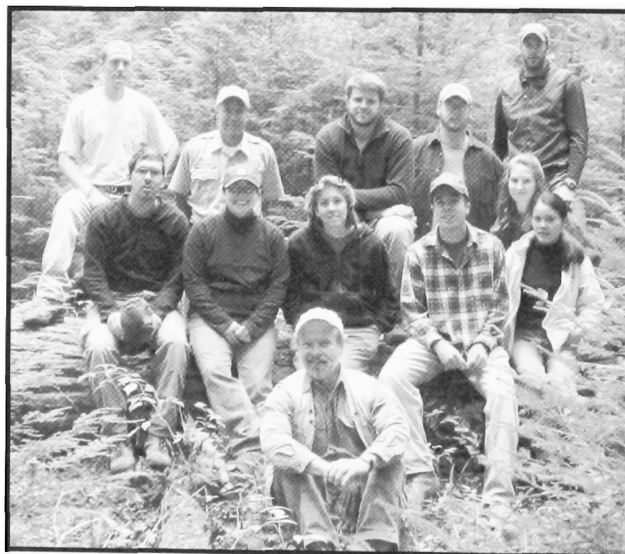
Gregory Granger

Michael Maguire

Lori Jean Mitchener

Erika Rowland

Xiiaochun Li



Zuelian Zhang

Matthew Peterson

### Wood Science:

Qingzheng Cheng

William Tze

Ran Lin

# ADVANCED ENGINEERED WOOD COMPOSITES AND THE FUTURE OF THE WOOD PRODUCTS INDUSTRY

BY BARRY GOODELL  
PROFESSOR WOOD SCIENCE AND TECHNOLOGY

Maine is the most heavily forested state in the country. Although wood is plentiful in the state, much of that wood is of lower grade. To use this wood competitively in the market for structural products, innovative manufacturing processes and new designs must be developed to allow us to compete successfully with southern pine and Douglas fir markets. Development of new products and efficient use of our natural wood resources are the primary goals of students and faculty at the Advanced Engineered Wood Composite (AEWC) Center. The work done at the AEW Center is vitally important because demand for wood products continues to increase every year, and as wood supplies become more limited, we must train students ways to better use our resources to meet the demands of the public.

The AEW Center is a relatively new entity on campus that was initially conceptualized in the mid 1990's. Four faculty members, two from the Wood Science and Technology program and two from the Civil Engineering program, initially founded the Center. Federal support through a program known as the Experimental Program to Stimulate Competitive Research (EPSCR) provided for the initial support of two additional faculty members, one in Wood Science and Technology and one in Civil Engineering. In 1996 the National Science Foundation provided funding to the University to establish the Center, focusing specifically on wood composites that were bonded to fiber reinforced polymer (FRP) materials. Many other grants followed to help build the Center. FRPs are nothing more than materials such as glass fiber (like fiberglass) that can be infused with resins to become stiff, structurally supporting materials. Although the use of fiberglass together with wood had been done for many years, structural FRPs made from glass, carbon, and even Kevlar had not been bonded to wood previously for use as a hybrid structural material. The Center now has developed and patented a number of new products, and faculty and staff are actively moving these products out to the marketplace.

Within four years from the startup of the Center, 41 undergraduate and graduate students were working on AEW projects. Today, close to 100 undergraduates alone are hired to work at the Center each year. With a high bay expansion and a new office and lab space ex-



AEWC Center

pansion to be completed later this year, the AEW Center has truly become a World Class educational and research facility without rival in the United States. Students are exposed to state-of-the-art equipment and technologies that they would normally only see in industrial operations. The Center conducts both basic and applied research, and industry often contracts with the Center to run tests of new products that cannot be fabricated and tested elsewhere. Examples of the test equipment in the Center with unique capacities include the full size 4x8 ft hot press that can produce a full size composite structural panel, or the new Davis-Standard twin-screw Extruder that produces wood-plastic composite lumber produced from a variety of plastics and wood furnish, including from recycled materials. The ability to produce full size "plastic lumber" and other profiled products using this technology has attracted interest from a number of companies interested in ways to utilize wood residues, formerly considered as waste, to produce useful products.

The AEW Center continually seeks ways to better utilize wood and wood fiber and in a relatively short time has taken a leadership role in this quest both nationally and internationally. The combination of Wood Science and Technology with Engineering has produced a facility where education and research are blended to benefit both students as well as the industry of the state and beyond.

# Quotable Quotes

## Blast From The Past

"The time may soon arrive when the three great cities of North America - Bangor, New York, and San Francisco - shall be representative of the wealth, population, intelligence, and enterprise of the eastern, central, and western divisions of our country."

-Oliver Frost, 1869



"Beer is a metaphor for everything we use as consumers; we don't buy it, we just rent it."

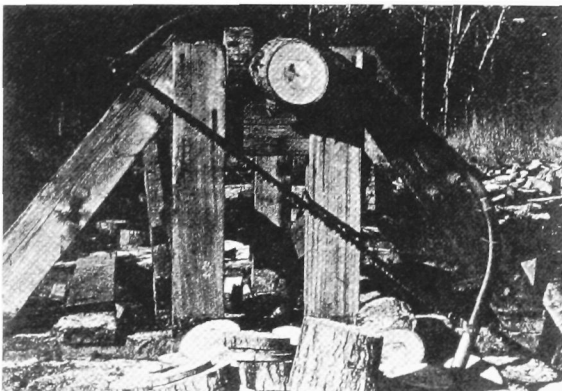
- Mark Anderson (unknown year)

"Despite all this talk of metrification and stuff, we'll work in board feet." - Dick Hale (1983)

"I'll talk about it a little bit, just so you can see how complex it is" - Dave Field (1983)

"...some silly basal area figure which doesn't mean anything to anybody." - Dr. Newby (1983)

"What is really fun is to play Star Raiders with a six foot projection and three foot speakers on each side." - Dave Field (1983)



"If you have to choose between organization and breakfast, choose breakfast every time."

- Al Kimball (unknown year)

"Real foresters don't giggle."

- Dave Field (1983)



"That answer is another example of the 'Tom Brann Endless Answer To A Question'."

-Tom Brann (1983)

"I am supposed to be out of the room so that I don't intimidate you." - Dick Hale (1983)

"You guys are foresters? Do you trim bushes?"

- Waitress in Kentucky, SAF Convention

"I'm back in front of the arcade again."

- Dave Field (1983)

"It's sort of like due east south."

- Faith Allen (1983)

"I keep killing all my deer... They 're stable, but they're all dead" - Carol Shaw (1983)

"Sites... It's either a good site or a bad site, it either grows trees or it doesn't."

- Edwin Giddings (1977)

# Quotable Quotes

## Blast From The Past

"If you can't research you teach, if you can't teach you do research, if you can't do either you become an administrator" – Anonymous

"If it flies, it dies." – Terry May (1977)

"With the Kraft process you can start with anything, the paper ends up brown anyway."  
– Dick Hale (1977)

"For all you guys from Aroostook County, that is a girl. For all you guys from New Jersey, that is a tree."  
– James Shottafter (1977)

Dave Field: "Economists are a rare and endangered species."

Ben Hoffman: "Good! Let's keep it that way."

"Definition of an economist: an accountant without a personality." – Bud Blumenstock (unknown year)

"Was Ed McMahan in to see me while I was out?"  
– Dave Field (unknown year)



"The final exam will be at 8:00, Tuesday morning. It will not be typical, not rational." -Dick Hale (1979)

"Some of the things i teach you in this course may be of marginal value." -Dave Field (1980)

"A graduate student is one that writes down everything the professor says - even 'Good Morning' "  
- Warren Burns (1980)

"Hey, where is Joe at? He's probably inside talking to the cashier about skidders."  
-Sophomore Summer Camp (1990)



"I went up to a fedder, and it feeded up"  
-Dick Hale (1981)

"You can get to the point where your mind goes dull - before you go to Pat's." -Al Kimball (1981)

Upon reading the first question on the entomology exam: "Oh well, I'm already down to a 99" -Nick (1985)

"Next lecture after midterm is damage appraisal"  
-Dave Field (1985)

"It is an unwritten law of the west, you don't mess with a man's toothbrush!" -Brian Hobbs (1985)

"I've never seen a pileated woodpecker whip out a D-tape." -Louis Morin (1989)

"If I died at the age of my test grades, I'd be in trouble."  
-Cindy Gamron (1989)

"The hardest thing I had to learn when I went back to school wasn't the new material, but new names of the material." -Ben Hoffman (1990)

# Quotable Quotes

## Here And Now

"People throw bulls^#@ around all the time."  
– Al Kimball



"If somebody doubled the price of TP, are you gonna buy less? Cause I'm not!!" – Dave Field

"Since you are mostly water, it can't be normal."  
– Al Kimball

"I know I'm approaching gezzerhood, cause I got one of these, a Gold National Parks pass."  
– Dave Field

"Listen as I babble along." – Dave Field

Al Kimball On Competition:

"If you are my size, you do it in the dark, from behind, with a stick."

"Before this class you may read through it and say 'What the h\$^& is this about?'"  
– Bill Livingston

"Its hard to explain, its kinda like sausage being made."  
– Dave Field

"I have one and my kids have warned me where it is going to go one of these times." – Al Kimball

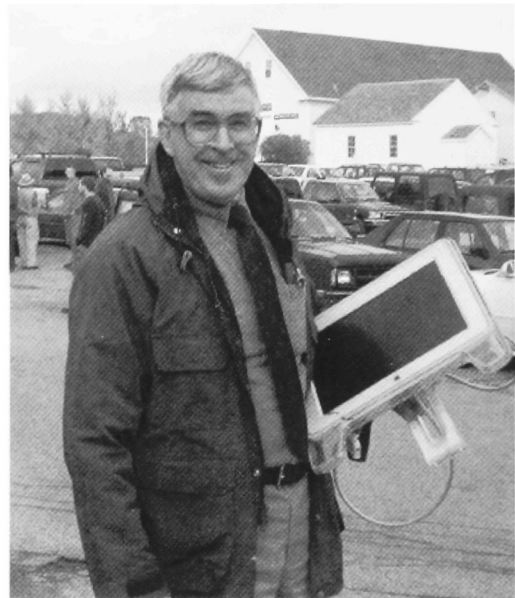
"Oh God, I gotta coin a whole new phrase."  
– Dave Field

"If you want to get someone upset, you kill their kids. But if you really want to piss them off, you twist things." – Al Kimball

"The world has many gray areas. We continue to learn. It used to be that clearcuts were good, now they are bad. It used to be that slash was good and now it is bad. We continue to learn."  
– Dr. Field

"That's a wise-ass posture by the way."  
– Al Kimball

Rob: "I guess I'm not really sure what you are asking."  
Al White: "Well I'm not so sure either."



"You are in the woods with a paint gun trying to decide whether or not to mark a tree, and the tree is saying 'Don't kill me, don't kill me, don't kill me....'"  
– Dave Field

"Don't assume that you know what you know you know until you know that you know.....Well.....Whatever."  
– Dave Field

"Be careful studying old tests, cause sometimes I ask the same question, and just change the answer."  
– Dave Field

# Quotable Quotes

## Here And Now

"Back in the early nineties, well to be exact it was '88."  
– Louis Morin

"So, how big are your crabs?" – Steve Sader

Rob: "So, exactly how long do you have to stroke it  
louis?"

Louis Morin: "Oh, not very long..... Why do you  
always set me up like that?!"

"Is it ethical to promote alternatives to wood,  
especially if you yourself consume wood, and do not  
reduce your consumption?" – Dave Field

"Opposable thumbs; not only great for holding beer  
cans but also for tree climbing."  
– Mac Hunter

"Find one and I'll disturb it." – Al Kimball



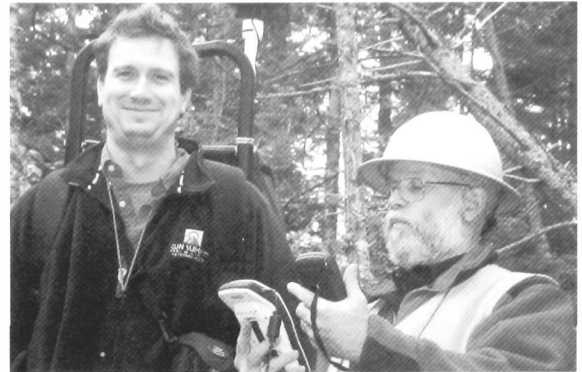
Dean Kezis on random drug testing: "Yep, they are  
waiting for all of us right out that door..... I'm  
going out the other door..... No really, I am going out  
the other one."

"And this thing went 'Boogidy Boogidy' out through  
the woods." – Al Kimball

Al Kimball on gymnasts: "...those little noodley people  
on the bars."

"In my notes it says 'elasticity.... Who cares'!?"  
– Dave Field

"Environmental ethics hold the single most important  
factor in forest policy." – Dave Field



"I know it's time to start losing weight when I start  
finding lint in my belly button."  
– Fred Servello with a piece of lint in his hand at  
Winter Ecology

"Humans are like moths, the only reason we are still  
alive is that we can't fly." – Al Kimball

Bill Livingston: "You guys are finally getting it."  
Class: "Uugggh... Not really."

Bill Livingston: "Please just let me have my illusions."

"You should now have a complete Wang."  
– Andy Egan

Al Kimball on.....well, we aren't sure: "...that's cause  
fish need a bubbler."

"Forest Policy is a standard or guideline that an  
individual organization or society has chosen to direct  
behavior through the use of forest resources."  
– Dave Field

Al Kimball while swinging his arms wildly: "What  
would you call this?"  
Ross: "Aerobics."

"Does anybody know what an air brace is? AHHHH  
I'M GONNA DIE!" – Al Kimball

Regarding New Zealand Forests: "It just burns, if you  
look sideways at it." – Dave Field

"The opposite of communicate is obfuscate."  
– Al Kimball

"What is a homo?" – Bill Livingston



# Quotable Quotes

## Student Funnies

Dude, stop ripping on me about my animal noises.”

– Rory



Rory: “I’m not sure what I would do without this example in front of me.”

Aaron: “I’d get it wrong just like I did on the last test.”



“My dad used to fill bottle caps with beer and give them to my hamster. He did this again and again. By the end of the night my hamster was sloshed.”

– Iron Balls (Adam Nicak)

While studying for a Forest Ecology test:

Pete: “WOW!!”

Nottermann: “What? Do you actually know something?”

Pete: “NO!! These are damned hard!”



Davey: “You better watch it, we’re a heck of a lot bigger than you!”

Rory: “Yea, but we’re like hydrogen bonds: weak alone, but very strong in big groups!”

Ross: “Eyes on your own paper!”

Nottermann: “Like I’m gonna copy off of you!”

Sammy: “What the h\*&@ is Ash??”

Maggie: “ITS A TREE!!”



“I need the grease in Sammy’s pants!!”

– Shawn Bugbee

