



Charlie Slavin, Dean

MINERVA

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Front Cover: Clockwise, from top left: Honors students in Denver, CO 2007, Washington, DC 2006, New Orleans, LA 2004, Chicago, IL 2003, Washington, DC 2009, St. Louis, MO 2005, Philadelphia, PA 2006.

Opposite: The Alamo, San Antonio, TX

Back cover: View from the plane en route to the National Collegiate Honors Council conference in Chicago, 2003. Photo by Jonathan Beever '03.

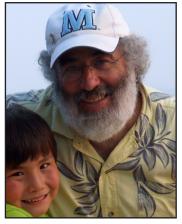
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From The Dean

74 Years and counting...



Dean Charlie Slavin and his son, Sam

As we approach the celebration of seventy-five years of Honors education at the University of Maine, this seems to be a good time to reflect on where we are — and where we might be going.

You will read in the following pages about our achievements over the past year. At the top of the list is the completion of the renovation of Colvin Hall, including our beautiful new fourth floor space which exceeds any expectations we might have had, and the success of the INBRE proposal which provides numerous, unparalleled opportunities for our students involved in cutting-edge research. You will also read about our students who have won nationally-competitive scholar-

ships and those who completed their thesis work in 2009. You might also see mention of the nearly 100 students who are on-track to write theses this year, nearly twenty percent more than any previous year. Wow!

You're holding another Honors College success in your hands. Once again, MINERVA has received the highest award in the National Collegiate Honors Council's 2009 publication competition. This award, for the 2008 and 2007 issues, is testament to the work and dedication of our staff, most notably Emily Ann Cain '02, who is not only our Coordinator of Advancement, but also served as editor for both of those issues. This recognition follows our 2007 first-place award for the 2006 and 2005 issues, and the 2005 second-place award for our first two issues. Not too shabby.

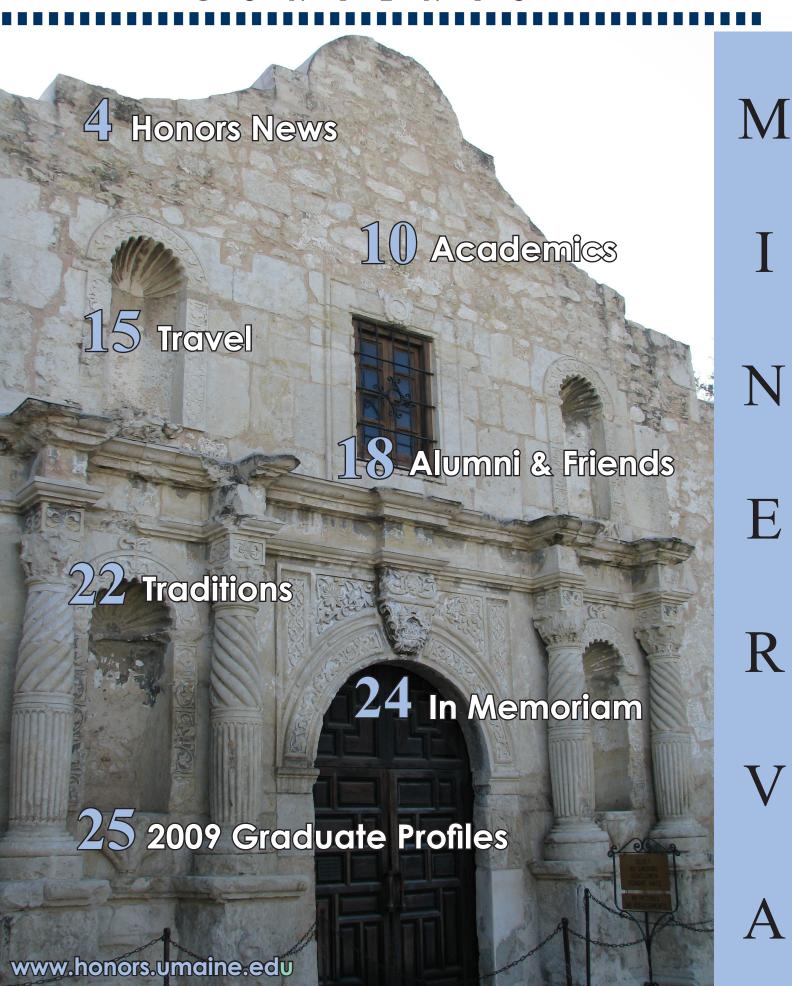
So where do we go from here? Two years ago, I called for the Honors College to "become a leader in undergraduate education in New England," and I suggested the hard work and extensive collaborations that would be necessary to achieve such a lofty goal. The continued robust size of our incoming class, the achievements mentioned above, and our rising graduation rate are among the indicators that suggest we are moving in the right direction. However, the world-wide economic catastrophe of the past year and the continuing austere outlook for the University in the near future are hard to ignore. It has affected the Honors College along with everything else.

What can we do? We can't stand still. That won't work. The Honors College can, and will continue to, bring bright, committed, and interested students to the University of Maine. And it can, and will continue to, provide them with an outstanding education and tremendous opportunities. We have to keep moving forward, using all means available. This includes continuing to seek funding from external agencies and foundations, encouraging our friends and graduates to support us in any way they can, and coming up with new and innovative ideas. If you have an idea, I would love to hear from you. Call me. Email me. Write me.

As we work to meet these challenges, we are also preparing for our celebration of seventy-five years of Honors at the University of Maine. You can read more about that here, too. But while you are thinking about it, start planning to join us for the festivities. I look forward to seeing you there!



Charlie Slavin, Dean



Honors Students Making Waves in Awards Competitions

Since the inception of the Honors College, our students have been quite successful in earning nationally competitive scholarships and fellowships. They have received Morris K. Udall Scholarships, Ernest F. Hollings Scholarships, and Barry M. Goldwater Scholarships to support their education as juniors and seniors, and they have received Jack Kent Cooke Foundation Graduate Scholarships, Fulbright U.S. Student Grants, and James Madison Memorial Fellowships to further their education after graduation. Here are profiles of this year's winners; we will surely see more in the coming years.





Ernest F. Hollings Scholarship

The National Oceanic and Atmospheric Association (NOAA) Ernest F. Hollings scholarship program is designed to increase undergraduate study related to the ocean, the atmosphere, and the environment, and to prepare students for a career in public service or education related to these topics. Samantha Bond '11 (Marine Science— Marine Biology) and Jeremy Bender '11 (Marine Science—Marine Biology) each received a Hollings Scholarship in 2009.

Samantha says that this award "has been an incredible gift... it has allowed me to avidly pursue my dreams of becoming a research marine biologist. I intend to spend my 10-week internship focusing on the conservation, rescue, and rehabilitation of marine animals in one of the National Marine Sanctuaries, I am honored to be a recipient."

Jeremy is excited about the "valuable experience working in the field and analyzing data for an independent research project." He plans to spend his internship "developing a research project related to shark biology, and carrying out field and laboratory work at a NOAA facility" and recognizes that "this opportunity is very significant for me as I hope to attend graduate school after I graduate from Maine."

Morris K. Udall Scholarship

The Morris K. Udall Scholarship and Excellence in National Environmental Policy Foundation awards up to 80 scholarships to undergraduates who have an interest in, and potential for careers in fields related to the environment, Native American healthcare, or tribal public policy.

Laura A. Wood '10 (Ecology & Environmental Sciences), a 2008 Hollings Scholarship winner, is honored to have been selected for a 2009 Udall award because it means she is "now a part of a growing Udall Alumni network that consists of environmentalists, engineers, tribal policy leaders, ecologists, etc. who are all striving for the same goal of sustainability." While the scholarship may be helpful from a financial standpoint, Laura says that "it is miniscule compared to the greater benefit of a Udall community that I have now just become a member of."



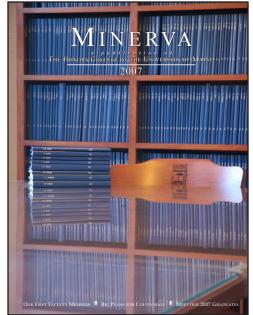


Goldwater Scholarship - Honorable Mention

The Barry M. Goldwater Scholarship was established by Congress in 1986 to honor Senator Goldwater by recognizing 300 outstanding college sophomores and juniors throughout the United States pursuing careers in the fields of mathematics, the natural sciences, and engineering. **Ryan Whipkey** '10 (Biochemistry, Chemistry, Molecular & Cellular Biology) was recognized with an Honorable Mention in the 2009 Goldwater competition. Ryan was inspired to apply for the Goldwater after four years of summer internships in research and development and two years of work-merit funded research on campus at UMaine.

And the winner is... MINERVA 2007 & 2008!

MINERVA earns top prize from NCHC



We often hear from our graduates, friends, and students how much they enjoy MINERVA. Apparently, the National Collegiate Honors Council agrees. The email notification read: "Congratulations! Your honors newsletter won 1st place in this year's Faculty, Administrator, Student Published NCHC Newsletter Contest!"

It's great to see that the 2007 and 2008 editions of MINERVA have once again been recognized this way, joining the 2005 and 2006 issues. We love bringing a quality product to the Honors College community, and we will proudly accept the award in DC this fall at the NCHC conference.



Twice is nice for Rachel & Stephani

One year just wasn't enough!

Our first year was jampacked with events and adventures! After tackling our first major assignment (establishing where to get the best coffee on campus — Oakes Room in the Library, definitely!) we were down to business.

We have enjoyed teaching and substituting for Honors classes of all levels, supporting our hard-working thesis-writers, meeting inspiring graduates, and encouraging high school students to choose UMaine and the Honors College.

Our favorite new tradition is the tie-dye t-shirt party to wel-



Stephani & Rachel greet Honors students on move-in day!

come students in September (see a photo on page 21). We won't soon forget: BBQ-ing in the rain; setting off fire alarms with guest lecturers (see page 23); missing our bus stop on the way to an art museum in San Antonio; and learning how to slackline, with the help of an Honors 391 student — let's hope someone destroyed that footage!

What will we do next? The Associates keep you up to date on Become a fan: UMaine Honors College

facebook.

Some fun facts you <u>definitely</u> should know about Stephani Nola & Rachel Snell:

Stephani just completed her first half-marathon, and is exploring Maine one hike at a time- or three up Katahdin this summer!

> **Rachel** has started a food blog on living a gluten-free life, check it out at http://madisonpapers.blogspot.com/

Betsy '55 and Bill Leitch: True Friends of Honors

An inspirational story of creating opportunity for Honors students

When Betsy (Pullen) Leitch '55 was a student at the University of Maine, she lived in Colvin Hall, now the home of the Honors College. More than 50 years later, Betsy and her husband, Bill Leitch have helped transform not only Colvin Hall, but the entire Honors College into a dynamic living and learning environment with unique programmatic offerings that focus on enhancing the undergraduate experience. Their generosity to Honors and to UMaine reached a level of eternal impact this year with their decision to endow the Honors Research and Travel Fund through their estate plans at more than \$1.2 million.

It all started with the planning for Betsy's 45th Class Reunion in 2000. The Class of 1955 elected to support the renovation of Colvin Hall as a priority for their fundraising; in particular,



Betsy & Bill with UMaine President Robert Kennedy on a recent visit to UMaine.

they opted to restore the Professor Cecil Reynolds Library, the "front door" to the Honors College, on the first floor of Colvin Hall. Betsy's ties to the building ran deeper than some of the other members of her class, however, and she and Bill decided to make an accompanying gift to the first floor renovation. The Betsy '55 and Bill Leitch Commons is the welcoming area that opens up to the Ulrich Wicks Office Suite as well as the Mel Gershman Seminar Room—the main intersection of the building, for sure! Betsy and Bill found the story and potential of Colvin Hall so compelling that they went on to name the Margaret Chase Smith Visiting Faculty Suite on the fourth floor, a space that has significantly enhanced the living-learning environment of Colvin Hall and provided a remarkable opportunity for interaction between our students and visitors to UMaine.

Colvin Hall is where the great friendship between the Honors College and Betsy and Bill started, a friendship that has grown stronger over the years. They have consistently wanted to support "quirky" things that directly impact students, so we brainstormed ideas with them to maximize the benefit to Honors students. In 2001, Betsy and Bill began supporting travel, research, and cultural opportunities for Honors students with an extremely generous gift that they have renewed annually.

The Provost's Commission on an Honors College also finished its work in 2001 (an effort started by then Provost, now President Bob Kennedy), detailing a plan to transform Honors at UMaine, but resources were limited to make the full transition from Program to College. Betsy and Bill again stepped up and agreed to fund the start-up costs of the Honors College for its first few years, during which time the University increased the funding for the College. Their generous gift immediately enabled us to create the Honors Associates positions, and supported our efforts to revamp the curriculum, increase the size of our student population, and bring to life the vision for an Honors College at UMaine.

The generosity of Bill and Betsy Leitch is great in both size and scope. They understand what it means to support areas that impact students directly and the Honors College is fortunate to have them as dear friends. President Bob Kennedy has known Betsy and Bill since they first began their relationship with Honors ten years ago. "Betsy and Bill Leitch are shining examples of what we hope all of our students will become – lifelong friends and supporters of UMaine. They have improved the quality of the UMaine Honors experience and made opportunity limitless for Honors students through their support of research and travel. The Honors College would not be the point of pride that it is today without their support."

Over the past eight years, the Honors College Research and Travel Fund has made it possible for the College to provide research and travel funds to more than 50 thesis students, travel with more than 200 students to National Collegiate Honors Council conferences across the country, and bring more than 250 students to Washington, DC on spring break trips. Their decision to endow this fund in their estate plans means that generations of Honors students will have the opportunity to travel and research as undergraduate students and scholars all over the globe.

If you would like to learn about planned giving to the Honors College, please contact Danny Williams '91, '94G at the University of Maine Foundation by email at daniel@maine.edu or by phone at 207.581.5105.

A Note About Postcards and Saying Thank You...

Postcards are an important symbol for the Honors College. Check out the Travel section of every MINERVA and you'll find the phrase "Postcards from Honors" splashed across the page (p.16-17 in this edition). Also notice that postcards were the idea behind the cover of MINERVA 2009 to recognize some of the many places we have traveled with our students. But, truth be told, postcards would not mean much to us if we didn't know Betsy and Bill Leitch (pictured below with our students in front of their home). More than anything else, postcards are a symbol of the connection we have with Betsy and Bill and the number of student lives they have positively impacted.

In 2001, the first year that Betsy and Bill supported travel for Honors students, we were struggling to find the right way to thank them. A simple note from the Dean did not seem enough to acknowledge and capture the gratitude and excitement the students felt. One of our students, Nick Cloutier '04, made the suggestion that each of the students on the trip send a postcard from the travel destination to Betsy and Bill at their home. The rest, as they say, is history. That's what we did, and that's what we still do today! Betsy and Bill have hundreds of postcards at their home which they love to show them off to everyone who visits, and our students have cemented a life-long connection between two wonderful people and the Honors College.



I may not have been offered my current job (as a traveling admissions counselor for UMaine) without the experiences the Leitches helped provide for me as an Honors student. Thank you!

Nick Cloutier '04

Thank you for giving me the chance to see the Supreme Court - it was a lifetime dream and hopefully someday I'll sit on the court! Thanks, again!

Sandra Townsend '08

When I first heard about the D.C. trip as a first year student, I wanted to be first on the list to go to such a beautiful city infused with history I had only heard about. When I learned it would be virtually free of cost I was shocked. Thank you so much for making this possible!!

Anne Campbell '12

The opportunity to travel at virtually no cost-- to experience history, culture, and the breadth of influence of the Honors College--is one that I was thrilled to be offered. That's a "spring break" trip that I will not soon forget.

Ashley Robinson '10

Thank you for being so generous. You've made it possible for us to explore a world outside of Maine and given us an opportunity to build our Honors community. Thank you!

Melissa Carter '11

I had never experienced travel like this before and it was all due to the generous support of Betsy & Bill. These days it's hard to find people who are willing to give so much to students. The trip was amazing! Thank you.

Jason S. Smith '12

I will always remember and be grateful for these opportunities. They've shaped my goals for the future and set an example for me and my fellow students to support future students at UMaine. I know how much these experiences have meant to me, and I want to help enable future students to go farther than they think they ever could. Thank you!

Rebecca Morton '10

Traveling with the Honors College has been the highlight of my undergraduate experience. Thank you for providing me with my first ever plane flight!

Carly Gaudette '11



Welcome to the...

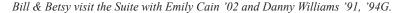


The Margaret Chase Smith Visiting Faculty Suite, named by Betsy '55 and Bill Leitch, is a gorgeous space designed to host visiting scholars during short-term visits to UMaine. The design builds upon the original attic rafters, beams and windows (seen in the above photo) to create a room that is the perfect blend of past and present. The Honors College uses this space to collaborate university-wide with other colleges and departments to bring the living-learning environment of Colvin Hall to a new level of engagement. There is no other space like the Suite on the UMaine campus.

The first three visitors to the Margaret Chase Smith Visiting Faculty Suite exemplified the multi-disciplinary breadth of the Honors College. In the space of two weeks in April 2008



The Suite before (above) and after (below) the complete renovation of the space.





we welcomed an artist and activist, the Rezendes Visiting Scholar in Ethics, Rob Shetterly (see p. 22-23); historian of Islamic science, this year's Phi Beta Kappa speaker, Professor George Saliba of Columbia University; and the Director of Harvard's Forest, the Geddes W. Simpson Distinguished Lecturer, David Foster.

That diverse and fascinating group will be followed this fall by four two-week visits by Doug Hall '81, the instigator of the University's Innovation Engineering initiative and the founder and CEO of the Eureka Ranch, an innovation consulting firm. Each of these visits provides informal opportunities for small groups of Honors students to meet and converse, usually over breakfast or lunch, with these distinguished visitors. We are already looking forward to more exciting guests in 2010!

Honors students bring not only intellectual talent to the Honors College, but other skills as well... one student showed off his juggling skills at the Welcome BBQ in September!

Doug Hall '81 is spending a lot of time in the Visiting Faculty Suite this fall. Eight weeks, to be exact! He is a visiting faculty member in Innovation Engineering through the Foster Student Innovation Center. -



Our students are always showing up to help at Colvin Hall... at our Welcome BBO, students, and several graduates did the set-up, cooking, tye-dying, eating, and clean-up alongside our staff.



To keep up with life in Colvin Hall, check our website often at

www.honors.umaine.edu

Four members of the Class of 2013 meet-up at the BBQ and show off their Honors College t-shirts! - -

Colvin Hall: One Year Later...



It has been an exciting year since we celebrated the reopening of Colvin Hall, fully-renovated with a large crowd of students, university officials, graduates, faculty, and staff. The potential for this space seems to have no limits, and it is another resource we have to use as we work to fulfill our mission to "provide a unique opportunity for a community of more than seven hundred and fifty motivated students to investigate diverse academic areas of the University, to be challenged in a supportive intellectual environment, and to critically engage fellow students and enthusiastic, distinguished faculty in thoughtful, provocative discussion."

We have been happy to host a number of Honors College and University events in the Oscar Remick Student Forum, the spacious area adjoining the Margaret Chase Smith Visiting Faculty Suite (see page 8 to learn more) – both of which were still the attic of Colvin Hall only a little more than a year ago. The first event was a packed viewing of the historic inauguration of Barack Obama in January 2009. Over the following months groups from local high school honors programs (Orono and Old Town) have used the Forum along with units from across campus and groups within the Honors College. It's a tremendous space which serves our students well – particularly the thesis writers who seem to be camped out up there 24/7, reading, writing, and having fun as they work!

Please come visit us, and see for yourself!



Honors Fellowships Have a Major Impact

Thesis Research, Study Abroad Supported

Carolyn E. Reed Pre-Medical Thesis Fellowship



The Carolyn E. Reed '74 Pre-Medical Thesis Fellowship is intended to encourage students to investigate and understand the rigourous academic path to a career in medicine. Winners of this fellowship are students whose Honors thesis research shows passion for and dedication to medicine and who are are devoted to improving the world through active research and establishing an academic background that will enable them to become world-class physicians.

This year's winner is **Amy Foley '10** (Biochemistry) from Deer Isle, ME. Amy's thesis, *Growth of Aortic Endothelial Cells under Micro-Gravity Conditions*, focuses on growing human cardiac tissue from stem cells in a bioreactor under negligible gravity conditions. The goal of this cutting-edge research is to produce cardiac tissue that can be used to repair and replace dysfunctional tissue associated with heart disease, vascular injuries, and abnormalities. Amy's advisor is Alireza S. Sarvestani from the Department of Mechanical Engineering, who runs a Tissue Engineering laboratory at UMaine.

Amy has dreamed of becoming a doctor since she was young, and plans to become a pediatric neurologist. Her personal life experiences with epilepsy fuel her passion for "not only making a difference, but having a lasting impact on a child's life."

The **Quimby Family Foundation Thesis Fellowship** encourages students to appreciate and understand the rich beauty and history of Maine and is committed to preserving Maine's story in order to keep Maine "the way life should be." The goal is to explore Maine's natural environment and rich history through research and environmentally-conscious efforts. The intent is to make a positive difference in the lives of others by discovering and investigating ways to preserve, conserve, and improve the state of Maine.

Dylan King '10 (Ecology & Environmental Science) from Yarmouth, ME is this year's Quimby Fellow. His thesis, titled *Current Trends in Land Conservation Efforts in the State of Maine*, uses historical information on land-use policy and biological trends and interviews with individuals involved in conservation. Dylan hopes to analyze challenges facing land trusts and state conservation efforts and offer solutions based on common goals that will lead to greater cooperation and effectiveness for these entities. His advisor is Mark Anderson from the UMaine School of Economics.

To Dylan, "Roxanne Quimby has long shown her much appreciated dedication to the state of Maine and its natural beauty... I will follow this tradition as I seek out strategies to further the state's various land conservation efforts."

Quimby Family Foundation Thesis Fellowship



Charles V. Stanhope Study Abroad Fellowship

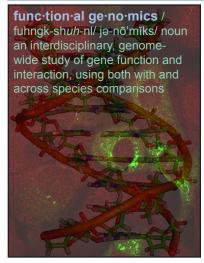


The Charles V. Stanhope '71 Honors College Study Abroad Fellowship is awarded to a student in the Honors College who studies for at least a semester outside the borders of the United States, with preference given to students who graduated from a Maine high school. The Fellowship is intended to encourage students to study abroad as a means to expand their horizons through the exposure to and understanding of different cultures.

Benjamin Fox '11 (International Affairs—Political Science), from Blue Hill, ME is the perfect student for the Stanhope Fellowship this year. Ben is spending his time in Aixen-Provence, France; and Charles Stanhope '71 majored in French as an Honors student at UMaine.

"I was extremely honored to be selected as this year's winner of the Stanhope Study Abroad Fellowship. Mr. Stanhope's kindness and generosity helped make my dream of studying abroad in France for a year a reality. Besides improving my French I have already learned and discovered so much about the greater world and my place in it. I am incredibly grateful to Mr. Stanhope and the Honors College for supporting me on this amazing journey."

INBRE: Honors College partners on \$18 million federal research grant



The Maine IDeA Network for Biomedical Research Excellence (INBRE) is an NCRR/NIH supported network of thirteen Maine institutions including Mount Desert Island Biological Laboratory (MDIBL), the University of Maine, and the Honors College at the University of Maine. The overall goal of the Maine INBRE is to strengthen Maine's capacity to conduct NIH-competitive biomedical research. Maine's INBRE provides research support and core facilities to junior faculty, creates research and training opportunities for undergraduate and graduate students, and serves as a pipeline for students to pursue health research careers and enhance the scientific and technological knowledge of Maine's workforce.

Through the INBRE grant, the Honors College is able to provide our students with outstanding research opportunities.

The INBRE Summer Research Fellowship Program will pair two Honors College students each year with a federally-funded biomedical researcher of the student's choice for a 10-week hands-on summer research experience with the INBRE.

Thesis Fellowships will be awarded each year to six Honors College students in their senior year who will work on Honors theses in biomedical research in comparative functional genomics with biomedical research scientists.

Seven third-year Honors College students each year will receive Junior Year Research Awards and work with biomedical research scientists on a research project in comparative functional genomics.

The Spring Course at MDIBL, now entering its eighth year, allows our students to get hands-on scientific experience working with outstanding scholars at MDIBL. Students spend their time immersed in the scientific environment; eating, sleeping, attending classes, working in the lab, and interacting with scientists. Students who have completed the course report that it was "vacation time" well spent!

www.maineidea.nei



The first six INBRE Thesis Fellowship winners, all from the Class of 2010: (from left) Erin Brunk, Chris Demers, Ankita Chowdhury, Ryan Whipkey, Becca Dyer, & Katie Nadeau



Matthew Cronan '10 took advantage of the spring course at MDIBL and a Summer Research Fellowship in 2009. Matt is a 2007 graduate of Bangor High School and is earning his degree in Biology from UMaine and the Honors College.

Here's how Matt describes his experience:

The Functional Genomics course that I participated in at MDI Biological Laboratory taught me the negative effects that arsenic can have on a variety of biological systems. I was able to conduct research with numerous scientists, pursuing experiments that might help us to better understand arsenic's devastating effects.

My summer experience allowed me to meet and learn from leading research scientists and develop life-long friendships with the next generation of scientists... the summer fellows like myself!

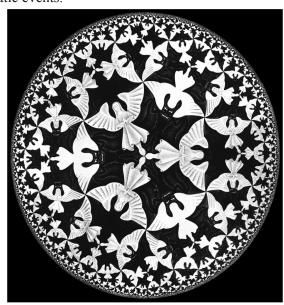
Honors Read 2009

The Lucifer Effect: **Understanding** How Good People Turn Fvil

Phillip Zimbardo's *The Lucifer Effect: Understanding How Good People* Turn Evil was chosen by students as the 2009 Honors Read because it asks two questions that are relevant to the entire Honors Civilizations curriculum: "Why do good people turn evil?" and "Why do we do what we do?" Zimbardo's book is a journey through the Stanford Prison Experiment, where Zimbardo split student volunteers into a simulation of prison guards and prisoners, acting himself as the prison warden. Originally scheduled to run for two weeks, the experience had be shut down after only 6 days because of several disturbing and dramatic events.

Honors Preceptor Jim Gallagher nominated the book because it "illuminated the possibility of evil in all of us... and that evil has to be 'taught' to us." He cites four themes that students will take away from this book: "First, that humans, by their nature, have the potential for evil. Note the assumption that evil (and good) is real. Second, to engage in evil we must learn both how to do it and that it is rewarding. Third, that other humans in power create the structures that produce evil and its rewards. Fourth, there is in we humans the possibility for combating and negating this process of evil"

In their first Honors lecture, members of the class of 2013 seized the opportunity to share their emotional reactions to the book, including anger, disbelief, annoyance, shock, concern, surprise, and agreement. Individual responsibility was a recurrent theme; one student summarized the relevancy he found in the text, "individuals have a responsibility to recognize the systems we're already in and be able to make the choice to remove ourselves from the system."



PERSEPOLIS



Sneak Peek: Honors Read 2010

Honors Preceptors Sharon Tisher and Michael Palmer nominated Persepolis by Marjane Satrapi as the Honors Read for 2010. Here, in their own words, each describes why this text is important for our students to experience.

TISHER: *Persepolis* is a memoir in graphic form ("comic strip") following the life of a young Iranian girl growing up during the reign of the Shah and through the Islamist revolution, her self-imposed exile to Austria to escape the threats posed by her rebellious inclinations, and her descent to living on the streets as a homeless immigrant in a foreign land. The way it tells a strange yet familiar story in words as well as stark black and white pictures is amazing. In these times when Iran has been singled out as one of the "Axis of Evil" nations, I felt our Honors students would relish the opportunity to explore this insider's account of life in this culture. I also suspect they will easily connect to many of the emotional experiences of childhood and adolescence, and issues of authority and liberty, raised by

PALMER: Persepolis deals with so many topics that arise in the themes that run through the Honors College's Civilizations sequence. It shows that "Islamic"

is not a word that denotes something monolithic. It shows what it's like to be on the "other" side of the wars in the Middle East, and how intractable the problems are in terms of how the two sides are perceived by each other. It deals with the problems facing women in most Muslim societies, and shows how this Muslim girl who grows into a woman in the West is conflicted about the role of women in Muslim society. The enduring theme of how people deal with the "other," which always looms large in our preceptorial discussions is there, and there are perennial questions such as the problems new generations have with the "traditions" in their culture, and with inter-generational family conflict, and so on. Finally, it's a brilliant work of graphic art, a compelling personal story.

CUGR: Journeys in Idea-Making



Aya Mares '11 and Honors Preceptor Mimi Killinger presented to a full room of interested faculty, staff, and students at the NCHC conference in San Antonio. They are just one of many examples of undergraduate research happening in the Honors College. Read more about other student NCHC presenters on page 16 and discover all of the research done by our Honors Class of 2009 on pages 27-43. We are proud of our connection with CUGR and we look forward to even more exciting work in the future.

The Center for Undergraduate Research (CUGR) had a very successful year in 2008-2009. Several initiatives came to fruition, including the launching of our new web site, **www.cugr.umaine.edu**, the offering of our undergraduate workshop series *Journeys in Idea-Making*, and the development of a survey of undergraduate students engaged in research and creative activity.

We've featured the outstanding work of students and faculty conducting research on our web site, including Honors College student, Aya Mares, and Honors College faculty, Mimi Killinger, who presented their work on art collectives at the 2008 National Collegiate Honors Council (NCHC) conference in San Antonio, TX. CUGR, along with faculty from across the university, presented a well-attended series of workshops exploring the processes of research and creative activity, such as the development of research/scholarly ideas, ethical decision making in research, and procedures of data collection.

We are proud to announce CUGR's co-sponsorship (with the Center for Teaching Excellence) of a day-long workshop on Ethics in Research to be held in March, 2010. The workshop, presented by a nationally recognized research ethicist, has been developed as a direct result of student inquiry.

For 2009-2010, CUGR looks forward to expanding the *Journeys in Idea-Making* series, introducing our research opportunity database, and creating new opportunities for undergraduate research and creative activity.

High School Articulation Agreements

Connecting early with the next generation of Honors students

Several students entering the Honors College this fall were invited through articulation agreements with Maine high schools. These agreements link the high schools' Honors programs with UMaine's Honors College and exposure to the benefits of pursuing higher education. The agreements vary school-by-school to align with local curricula, but generally include an established set of standards that, when met, lead to an automatic invitation to the Honors College if the student applies to and is accepted by UMaine. Our initial experience with Brewer High School, Old Town High School, and Orono High School have been quite positive, and we are ready to expand our network beyond the greater-Bangor area.

We believe this is a great place for students to learn and thrive in Maine, and we want Maine's most motivated and brightest students to consider what we have to offer when it comes time to choose a college or university. We also want to recognize students for going the extra mile academically, and for having the motivation to challenge themselves at a young age, rather than simply taking an easy path through high school.

UMaine's Honors College offers Maine students a way to have the same high-quality academic experience they might find at smaller, private colleges, with the added bonus of affordability and learning in the context of a top-rated comprehensive university. By choosing to go the path of the articulation agreement with the Honors College, students from your high school can know that their hard work will pay off, and that they can continue to challenge themselves academically right here at UMaine.

Jonathan Doty '01, Coordinator of Gifted and Talented Services for RSU #34 says, "I believe this program helps prepare students for fast-paced, independent college work. Faculty from UM frequently offer seminars for our students, or connect us to guest lectures by ambassadors, Nobel laureates, and other great opportunities. We have also been guests to the Honors College, where current undergraduates have helped our high school students understand what it means to participate in a university honors experience."

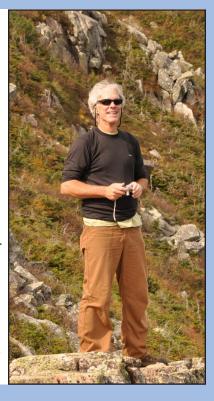
If you are interested in connecting us with a high school in your area, or to learn more about our articulation agreements, contact Emily Cain '02, Coordinator of Advancement at emily.cain@umit.maine.edu or 207.581.3308.

Why I Teach in the Honors College

Mark Haggerty, Honors

Teaching in the Honors College presents interesting challenges and great rewards. The breadth of the *Civilizations* sequence allows me to gain further insight into my own discipline, economics, and a greater understanding of its transformation since the inception of the term "economics" in ancient Greece as 'household management.' This experience offers me the opportunity to expand my own perspective and has helped me come to a more complex understanding of my discipline and myself. It has also provided me with the opportunity to explore the large questions we face as humans through discussions with students.

The Honors College provides me with the opportunity to study with enthusiastic, bright and challenging students. These interactions can be motivating, as students bring energy, creativity and alternative insight into the classroom. Teaching in Honors has also allowed me to interact with students in multiple learning environments such as the National Collegiate Honors Council conference. It has provided me with the opportunity to interact with students out of the classroom and create more in-depth relationships. Additionally, I have been impressed with the maturity of the students personally and as scholars. As an Honors College thesis advisor and committee member I have been able to see and enjoy the maturation of our students. It is truly inspiring to see how far the students evolve both personally and academically over their four years at the University. It has been a tremendous pleasure to teach in the Honors College for the past eight years.



Melissa Ladenheim, Honors



I came to the Honors College quite serendipitously. In 2005, a friend and colleague, who is a historian teaching in Honors, mentioned one day she had just led a class on the history of Einstein's $E=mc^2$ equation. I was intrigued with a program where an educator trained in one discipline could find herself teaching material so clearly grounded in another. The Honors College seemed to offer the perfect opportunity for the exploration of ideas bound not by the constraints of disciplinary paradigms, but only by the inquisitiveness and imagination of the participants. I talked with Charlie Slavin and soon began teaching in Honors.

As a folklorist, I am interested in exploring the relationship between "texts," whatever their form or genre, and culture with the objective of ascertaining not only what those texts might have meant when created and first used, but also how they continue to resonate currently. The collaborative nature of learning in Honors provides the venue to do just that in an engaged and dedicated environment.

Serendipity continues to describe my experience teaching in Honors, because the term encapsulates the sense of discovery experienced each time you guide a group of students through the curriculum. Although we are exploring works that countless others have done in the centuries preceding us and doing so from a range of academic interests, working with some of the best and brightest students as they engage in profound discussions on the fundamental questions of belief, justice, and human nature is both enlightening and inspiring. Equally satisfying is when students find relevance in texts which, upon first inspection, seemed just the opposite. To paraphrase Heraclitus, it is the insight, not just the learning that makes this process so valuable. Honors is liberal arts education in the best sense of that proposition, and I feel privileged to be part of that process.

GLOBAL VOLUNTEERS: We Choose Africa

Follow the journeys of Bettina Voigt '09 & Jon Pelletier '11 in their own words...

Bettina Voigt '09 taught English in Ghana

14 June 2008: The earth is so different from this point of view. The ground is red, the plant life is infinitely green. At times it seems the earth sparkles – some kind of red mica catching the sunlight just right. Mangos hang from the trees like little gems. Women and men balance everything on their heads – baskets, bowls, swatches of cloth, food.

16 June 2008: The children loved to learn. It didn't matter that the kindergarten room was too crowded, with two children per desk, or that there were not enough pencils to go around, or that goats and chickens wandered freely in and out of the classroom. They were excited to see drawings and letters on the decrepit chalkboard. They love to write in their little blue books. They also wanted to teach me, and they did!





26 June 2008: *Today was a breakthrough day at the* school. I devised a rhyming strategy to help the kindergarteners learn to read English! Gifty showed some serious improvement! She was able to read the words I pointed to outloud – by the end of the lesson. She was so excited she could barely contain herself!

5 July 2008: Possibly the greatest lesson that I learned and felt was the total and blatant humanity of Ghanaians. I saw love in the faces of the teachers, nurses, and students; I saw malice between students; I saw sacrifice when Madame put her chicken (at our going away party) in her bag for someone else at another time, another place. I saw people peeing and littering in the streets, but I also saw intense patriotism – everyone who was from Ghana loved being from Ghana.

Jonathan Pelletier '11 volunteered at a clinic in Tanzania



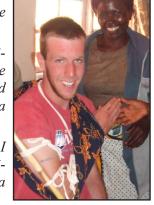
4 August 2009: Here I am greeted as "Doctor Jon" ("Daktari"), and I am starting to like the ring of it. We teach students about as much in 40 hours as I was taught in 120, and we are constantly working against the language barrier (my Swahili is still not even close to conversational), so things are a bit hectic. The most difficult portion is the laboratory work: I ran my first positive HIV test yesterday, on a 25-year old patient who was dead not more than 12 hours later.

10 August 2009: Tomorrow I will continue to work with Patricia, the local lab technician, performing tests, administering medications. I volunteered to undergo HIV screening with her, as she has to be tested monthly. As expected, our tests were negative, but we were so stressed out by the waiting that

she invited me to her home and I saw that a woman with 3 years university education has only one electric light in her entire residence.

Life here is marked by contrast: Government sponsored rapid direct-antigen tests for T. falciparum (a malaria parasite) seem incongruous with the fact that Patricia has now been reusing the same two microscope slides for three years. Patient care has a warm personal touch not provided by the businesslike hospitals in the states, but that comes at the price of no pain medications (as a 6-year-old boy with a compound leg fracture learned less than a week ago.)

Fall 2009: Perhaps the most accurate summary of the impact of my trip comes from the lines I wrote at the end of my video*: "Cultural understanding drives out fear of the unknown and eliminates the potential for blind hatred. All that remains is love." (*Check out Jon's video of Tanzania online — become a fan of the Honors College on Facebook!) ■■



The Dennis'57 and Beau Rezendes Global Volunteers Fund was established to encourage student volunteerism abroad in conjunction with Global Volunteers (Minneapolis, MN), an organization that sends people to "live and work with local people on lifeaffirming international service projects." FMI www.honors.umaine.edu/opportunities/rezendes-global-service-scholarships/

NCHC - San Antonio

The annual National Collegiate Honors Conference was held in San Antonio, TX last October. Thanks to the generosity of Betsy '55 and Bill Leitch, twenty Honors students traveled to Texas on a trip that included first plane rides, plenty of Tex-Mex cuisine, bull riding, and conference presentations. Eight faculty and staff mem-

bers also traveled to San Antonio to attend and present at the conference. A total of eleven presentations featured UMaine participants, including (to name just a few) From Bench to Bedside: Bridging the Gap between Research and Clinical Settings by Alexandra Albert '09; The Cultural Construction of Climate and Weather by Rebecca Morton '10; Pre-Medical Cross Cultural Barriers by Helen Mattsson '09 and Brianna Monahan '10; Trees Species Habitats: A Survey of Tree Species in an Upland and Wetland Area of Northern Maine by Cassie Vaillancourt '10; I Don't Want to Offend Anyone But . . . by Kristen Kuhns '10 and Carly Gaud-

ette '11 with the help of Honors faculty members Melissa Ladenheim and Mark Haggerty; Mark also presented with Honors faculty member Chris Mares, Ben Fox '11 and Victoria Fortin '11 *Crossing Frontiers: From Readers to Writers*; and Aya Mares '11 and Honors faculty member Mimi Killinger presented *Student and Faculty Collaborative Research in the Liberals Arts*.



Honors Goes to Washington

Once again this spring break, forty Honors students and five staff members piled into the bus for the fourteen hour drive to our nation's capital. In the five years that Honors has been traveling to DC, several traditions have emerged, including visiting Charles Stanhope '71 for a special tour of the Library of Congress, a photo opportunity with Maine Senator Susan Collins on the Senate steps, and as many trips to Kramerbooks Cafe as we can manage! This year a new tradition emerged: a social gathering hosted by DC area alumni. In March 2009, Peter Madigan '81 hosted this event in honor of the 50th Anniversary of the Congressional Internship Program. The event was filled to capacity with congressional interns past and present, other UMaine alumni and friends of the University of Maine and the Honors College from the greater DC area, and with honored guests former Secretary of Defense Bill Cohen and former Maine Governor John Reed.

Additional highlights of the trip included a tour of the Capitol Building and a behind-the-scenes tour of the National Archives – we had the Rotunda all to ourselves! Plenty of free time was available for trips to the monuments, Arlington National Cemetery, and the many museums DC has to offer. The trip culminated with a final DC tradition, a hilarious performance by the *Capitol Steps* before everyone boarded the bus back to Orono.

This year's trip was again made possible by Betsy '55 and Bill Leitch; all forty-five trip participants expressed their thanks to Betsy and Bill by sending postcards, of course!









Honors Students Study Away

This past year, once again, Honors students traveled the globe!

Here's a peek at their "study away" adventures:



H \mathbf{M} F O R



Melody LaPlante '10 – Business Administration – Seville, Spain Zoë Rose Lindsay '11 – Studio Art – Cornouaille, France Christopher Mace '10 – International Affairs – Barcelona, Spain Thomas J. Meehan '10 – International Affairs – Santiago, Chile Rebecca Morton '10 – Anthropology – UMaine Archaeology Field School Alisa Rhodes '11 – English & Romance Languages – Bilbao, Spain Laila Sholtz-Ames '10 – Journalism – Salamanca, Spain Catherine Smith '10 – Biology – Rome, Italy Jennifer Smith '10 – Business Administration – Bilbao, Spain Jessica Snow '10 – Studio Art – Crotona, Italy Laura Wood '10 - Environmental Science - Queensland, Australia

The adventures continue online! or more info on student study away experiences, visit our website for student photographs and reflections: www.honors.umaine.edu/community/honors-scrapbooks/

From The Prism to the Pulitzer Prize

Former Campus Shutterbug, Bettina Boxall '74 Wins Big



Julie Cart and Bettina Boxall '74 at the gate to Columbia University just before the Pulitzer luncheon. Credit: Brian Vander Brug / LA Times

When Bettina Boxall '74 returns to campus in 2010 to present the Distinguished Honors Graduate Lecture, more than twenty years will have passed since her last visit. After photographing Orono for the school newspaper and yearbook as a journalism student, she wants to see what has changed. "I'm curious if Pat's Pizza is still around. And I remember the frog chorus behind hilltop dorms that marked spring's arrival. Is it still croaking?"

Her visit may be timed just right—to find out about the frogs, enjoy Pat's Pizza, and celebrate a recent achievement. Boxall and her colleague, Julie Cart, were awarded the 2009 Pulitzer Prize for Explanatory Reporting, based on a series of articles written about wildfires in the western United States.

What led her from *The Maine Campus* to the *LA Times*, where she has worked since 1987? "I started out as a photographer but took a job at a daily newspaper in Vermont where I had to report as well. I realized that I was a more versatile writer than photographer and thereafter stuck to reporting."

Photography, though, was the focus of Boxall's thesis; she presented a collection of images taken during school breaks, at home in Washington, DC. Her advisor, Jack Walas, helped to persuade the committee that it was an Honors-level project. She wrote about the ups and down of her process in an

accompanying (and amusing) essay, *Some Notes on the Completion of an Honors Project*. In it she shares her fail-proof college brainstorming strategy: "I sat myself down on my bed and decided that I would not arise until I came up with a topic. Since I was getting hungry and wanted to go to dinner, I finally made a decision."

How does she overcome "mental roadblocks" now? Housework. "I try to distance myself a bit and let the work marinate in the back of my brain. Ideas and language will come to mind while I'm doing chores around the house."

If Boxall were to document her current neighborhood, as she did for her thesis, there are certain aspects she would want to capture: "The ways in which it defies the stereotype of Los Angeles as an amorphous sprawl stuffed with vacuous sunworshippers. My neighborhood is a community with an old LA flavor, full of creative people. I can walk to everything from the movies to the dry cleaners. I can go for days and even weeks without getting on a freeway."

Boxall remembers her favorite Honors reading class. "It was very small, informal and we chose the titles, rather than having them assigned. It was completely different from the typical structured undergraduate class." Like our students today, she grappled with challenging texts. Her most memorable read, for better or worse, was an attempt at *Ulysses* by James Joyce. "That was a humbling experience." (She still has a copy, and toys with the idea of tackling it again someday.)

Current thesis-writers are asked to compile a reading list of influential texts. Boxall considers what books she may have chosen: "I have fond memories of sitting in a big chair in the library's reading room as the snow piled up outside, working my way from *Don Quixote* to the mid 20th Century existentialists. Thomas Mann's *Magic Mountain* and *Buddenbrooks* were among my favorite books." Though the Honors Read tradition (page 12) was not in place when she was a student, Boxall suggests Joan Didion: "*The White Album* and *Slouching Towards Bethlehem* are probing and beautifully written."

Of her job, Boxall admits editing and deadlines can be stressful. The biggest challenge? "Interviewing people who don't want to talk to me." She savors the opportunities that make her efforts worthwhile: "Cutting through spin. Going places and meeting people I never would if I weren't a journalist. Being a perpetual student."

"This (photo) was taken at the Pulitzer ceremony. Julie Cart, fellow winner, and I have just received our Pulitzer certificates from the president of Columbia University. A very happy moment in my life." (Credit: Brian Vander Brug / LA Times)





It was my second deployment and the end of my tour onboard the guided missile destroyer USS Bainbridge (DDG 96) when we encountered an 18th century crime off the Somali coast in 2009. I had just started my watch as the Surface Warfare Coordinator (SUWC) in the ship's Combat Information Center when we received a message from our operational commander that a US-flagged merchant ship was being boarded by Somali pirates almost 400 miles from our position. We were the closest US asset to the Maersk Alabama, so we were directed to intercept and stop the pirates from hijacking the Alabama and sailing it into Somali waters. Even at best speed it took us almost 20 hours to reach the Alabama, and by then, the four pirates and Captain Philips were in the life raft.

We detached part of our ship's crew to the Alabama to provide security while she made her way to Kenya and the Bainbridge stayed with the diesel-powered life raft. For the next four days we tried to negotiate the terms of Captain Philips' release. We were worried about what would happen as the life boat ran low on food, water. and fuel. We were also concerned about the pirates contacting other hijacked merchant ships in the area that could pose a deadly threat to

our ship and exacerbate the situation. As SUWC, my role during the ordeal was to direct the ScanEagle UAV (Unmanned Aerial Vehicle) to provide a bird's eye view of the situation and reconnoiter beyond the horizon to track other pirated vessels in the area. If the situation came to the worst, I had my finger ready to hit the "battery release" button for the 5-inch deck gun and chain guns to destroy any threats to Bainbridge or Captain Philips. I was also responsible for directing our Optical Sight System with day/night imaging to keep a close eye on the life boat.

It was during one of my night watches that I noticed and alerted the rest of the watch team that the captain was attempting to swim away from his captors. Unfortunately, it was too dark and too far for our topside gunnery teams to get a clear shot and help the captain. On the night of the third

day another US frigate joined the scene and later that morning a squad of SEALS arrived on board. The cat-and-mouse game continued through the weekend until Easter evening, when the SEALs eliminated the pirates and moved in to rescue the captain using our Rigid Hull Inflatable Boats.

Once safely aboard, Captain Philips was transported via helicopter to a large amphibious landing ship for the night. He returned to *Bainbridge* the next morning to ride with us to Kenya to be reunited with his crew. Since I was also leaving in Kenya because my tour on Bainbridge was over, I was given the responsibility of being Captain Philips' escort until we were in port. It was a good reprieve to talk to and become acquainted with another New Englander while half-way

> around the globe. There was another hijacking attempted while we were en route to Kenya and we were diverted to assist, but the pirates were unable to board the Liberty Sun. We escorted that US merchant ship to Kenya, and arrived to a crowd of media and supporters.

> The Honors College encouraged me to hone my analytical skills and look at situations from a different perspective. This is a big part of my job as a Surface Warfare Officer where I encounter problems that affect the lives of my sailors. In

my new job as Damage Control Assistant on guided missile destroyer USS Forrest Sherman (DDG 98) I deal with the crew's comfort and safety on a daily basis. If the ship was ever inflicted with casualties, I am responsible for directing fire fighting and damage control efforts to keep my ship afloat and her sailors alive. Without a doubt, the critical thinking skill sets exercised in countless Colvin Hall discussions gave me the edge to assess and work to correct problems. Looking back at UMaine, the Honors College did more than any of my other academic studies to prepare me to be a naval officer.

Adam Jones '06 lives in Norfolk, VA with his wife, Jessica (Sirois) Jones '08. They are both Honors College graduates, and both lived in Colvin Hall Honors housing during their time at UMaine.

Current Student: Derek Hardy '10

Taking his Honors experience to China

My first glimpse of China was through the foggy window of a Boeing 747 as we descended into Beijing's Capital Airport. It was well past ten o'clock at night in late January, which just happened to coincide with the beginning of China's important Spring Festival. Beijing's suburbs, with lights few and far between, were being illuminated by a sky full of fireworks. The city was erupting with color – welcoming the new season and, unintentionally, welcoming me to the Middle Kingdom.

Despite researching China before my arrival at Peking University, I was astonished daily by the modernity of the city, the dynamism of the culture and the kindheartedness of the people. The first few days I depended on the help of strangers to perform daily tasks. Whether it was the kind grandmother who made and sold my favorite steamed buns for breakfast or the young girl who brought thermoses of hot water for tea every evening, my earliest interactions consisted of a flurry of hand

movements and the help of a dog-earred pocket dictionary. Yet by the end of my stay, I knew these people and their families. In a country famous for being suspicious of foreigners, I made close friends.

China is a country in transition. It is evident on the streets filled with avant garde architecture and the migrant workers who will never be able to go inside the beautiful buildings. In China's race to enter the ranks of industrialized countries, it is ripping apart much of its long history. The historic hutongs, or traditional courtyard style housing that made up most of Beijing until the 1980s, are being demolished to make Beijing more modern and cosmopolitan. The city, and much of the country, has a feeling of opportunity and optimism that comes with being a newly upwardly mobile society – but there is a sense of slipping away from a culturally rich, much economically poor past. For a country with such turbulent history, in the decades since the capitalist reforms



initiated by Deng Xiaoping, China has experienced prosperity unimagined by its people. The future, at least in the eyes of my friends in China, can only get better.

While my time in China was not without conflict or hardship, it has been a true highlight of my UMaine experience. The support I received from the Honors College allowed me to focus on my studies and work in Beijing, without fear of falling behind back in Orono. Thanks to the flexibility of the Honors College and the independent initiative encouraged by Honors faculty, I have had an unforgettable experience both at UMaine and at Peking University.



Isaac Record '03 (Electrical Engineering & Computer Engineering) is a Ph.D. Candidate (ABD) at the University of Toronto. He studies philosophy of science and hopes one day to have a beard as bushy as Charlie's.

Catching up with Isaac Record '03

On the impact of being an Honors Associate...

Honors was one of the best parts of being at UMaine. It opened my eyes to opportunities I might otherwise have missed – trying things that were scary at first, but extremely rewarding and easier with practice: travel, conference presentations, and most importantly, meeting girls. Honors was an escape from my "real" work, engineering. That's probably unfair, but Honors gave me the freedom to write – something engineers don't often have time for. Honors provided the luxury of thinking about big ideas and talking them over with some of the brightest people I've known. Ever since, I've sought out interdisciplinary, intellectually stimulating spots – it's one of the reasons I'm in grad school now, and why I became an Honors Associate, the best job I've ever had.

The best part of being an Associate was the trust Charlie put in us (Alice and me) to determine an approach to each challenge. That life skill has given me the confidence to

take on new projects, and do them successfully. I helped produce the 2005 edition of Minerva and now (not unrelatedly) I am Editorial Assistant for *Annals of Science*, one of the most prestigious journals in my field. I'm also the current Managing Editor and the next Editor-in-Chief of *Spontaneous Generations*, my department's own online peer-reviewed journal. In Honors, I coordinated part of the *Civilizations* Sequence. Now I teach a class in the history of science here in Toronto. I'm proud of the work I'm doing, and appreciative of the nurturing environment that led me (really a bit of a conservative fellow) to develop a taste for new challenges.

One challenge stands out above the rest: my dissertation. I'm writing about the philosophy of science, something I first learned about in Honors. As I finish the chapter about how laboratory practices grow up with and justify our trust in scientific instruments, I've been thinking often – and fondly – of my Honors Thesis experience. It turns out, thesis writing is a sticky skill – once you've done it, you always know how. A project this big is always hard, and if anyone reading this is looking for advice, I have just one piece: choose the thesis you want. It might have been easier to roll my engineering capstone into a thesis, but I wouldn't have been able to explore the topics I wanted – and I might not be where I am today. As I begin to look for a job as a professor, I already know one "must have": I'll be looking for a place with an honors college.

Lance Boucher '00

Maine's "Captain Recovery"



Honors graduate Lance Boucher '00, originally from Old Town, ME, lives in Portland with his wife Rachel, and their son Jackson (pictured above).

At the State Capital in Augusta, Honors graduate Lance Boucher '00 is known as "Captain Recovery," or (officially) as Director of Recovery Initiatives for the state of Maine. Lance is tasked with Maine's implementation and oversight of the federal American Recovery and Reinvestment Act (ARRA), passed by Congress and signed by President Barack Obama earlier this year.

After graduating in 2000, Lance moved to Washington, DC to work for New York City Mayor Rudy Giuliani's Office of Federal Affairs. Building on connections from his undergraduate years working for Maine Congressman John Baldacci through the Washington Internship Program, in 2001 Lance joined Baldacci's staff as Legislative Assistant for Defense, Homeland Security, and Education Policy.

The experience of working for Congressman Baldacci meant a logical transition to Augusta under the Baldacci Administration in 2002. Lance worked as a Policy Advisor, and served as the Governor's primary point person on federal legislation and with the National Governor's Association. In 2004, Lance coordinated the state response to the Base Realignment and Closure Process, and was ultimately assigned to oversee the Governor's response to the redevelopment of the NASB.

As an Honors student, Lance was a Political Science major. His thesis was titled, The Maine Term Limits Referendum and Its Impact on the Maine State Legislature, and his advisor was Kenneth Palmer.

For more information about Lance's work and use of the ARRA funds in Maine, visit www.maine.gov/recovery.

Connecting with Honors

We are excited about keeping contact with our extended Honors College community, and we hope you are, too. Over the past few months, we have completely redone our Honors College website, renewing the content, aligning it with the new University of Maine website, and adding some exciting new features. Please check out our new virtual scrapbooks (click on Communities), let us know what you are up to in the Grads & Friends area, and explore all the other nooks and crannies of the new site. As always, you can find us at www.honors. umaine.edu

Now you can also find us on Facebook! Join our other fans, contribute to the conversations, share your photos, and stay connected. Look for us there as "UMaine Honors College."





John M. Rezendes Visiting Scholar in Ethics

The annual Rezendes Ethics Lecture and Essay Competition are made possible by the generosity of Dennis Rezendes '57 and his family through the John M. Rezendes Ethics Fund, dedicated to providing our students and community access to important ethical issues.

THE HONORS COLLEGE AT THE UNIVERSITY OF MAINE

THE 2009 JOHN M. REZENDES VISITING SCHOLAR IN ETHICS

Robert Shetterly

The Ethic of Collateral Damage



Wednesday, April 22, 2009

Talk: 4:00 pm Donald P. Corbett Building Room 100 University of Maine

Artist Robert Shetterly features more than one hundred past and present American activists, writers, and political figures in his ongoing portrait project, Americans Who Tell the Truth. His subjects range from Abraham Lincoln to Malcolm X, and include Maine truth tellers Margaret Chase Smith and grade school peace activist Samantha Smith. Shetterly, a Harvard graduate, lives in Brooksville, Maine.

A book signing will follow the lecture, in the atrium of the DPC Building.

The John M. Rezendes Ethics Lecture was established to critically engage students, faculty embers, and the surrounding community with ethical issues of national importa This event is sponsored in part by the Cultural Affairs/Distinguished Lecture Series Fund.





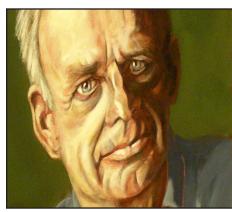
Poster design by Michael Mardosa, University Relations

FMI on the Rezendes ethics initiative, and to read this year's winning essay by Samuel Tate '09, The Ethics of Direct to Consumer Marketing of Prescription Drugs, visit www.honors.umaine.edu/traditions/rezendes-ethics-lecture.htm



A copy of Shetterly's portrait of Maine Senator Margaret Chase Smith will hang in the Visiting Scholar Suite in Colvin Hall that is named in her honor.

Shetterly brought several paintings with him for the lecture including farmer/essayist/ conservationist/ novelist/teacher/ poet Wendell Berry and environmental activist Judy Bonds.



Honors student, Ben Burpee '10, studies paintings of writer Edward Abbey and artist/ social pioneer Lilv Yeh (our 2006 Rezendes Visiting Scholar in Ethics).



"To embrace the fine, rhetorical flourish of unalienable rights is to accept wholeheartedly the burden of unavoidable responsibilities."





Robert Shetterly

Ethics through art & the restoration of hope

"The job of the artist is to remind people of what they have chosen to forget."

In recent years, Arthur Miller's words have served as the motto for Robert Shetterly—the 2009 Rezendes Visiting Scholar in Ethics. Shetterly is well known for the artistry and activism behind his ongoing portrait project, Americans Who Tell the Truth, which features more than one hundred past and present thinkers, writers, advocates, and political figures. His subjects range from Abraham Lincoln to Malcolm X, and include Maine truth tellers Margaret Chase Smith and grade school peace activist Samantha Smith.

Before settling in Brooksville, ME, Shetterly studied English at Harvard University, where he took the art courses that would shift his creative focus from the literary to the visual. He credits reactionary American posturing and policies following the events of September 11th as the impetus for another shift—from illustration to portraits.

Shetterly highlights the legacy of visionary Americans who belong in our collective consciousness, not filed away in forgotten archives. He describes his motivation as, "an effort to define America's heart in terms of compassion, not aggression."

To illustrate the message of his lecture, Shetterly displayed six portraits of diverse individuals: mountaintop removal activist, Judy Bonds; war-correspondent and peaceactivist, Chris Hedges, the 2007 Honors College Rezendes Visiting Scholar in Ethics and author of the 2006 Honors Read; poet and conservationist, Wendell Barry; advocate for young women, Lateefah Simon; artist and social pioneer, Lily Yeh; and nature writer, Edward Abbey.

Shetterly's public lecture was entitled *The Ethic of Collateral Damage*. He told the audience of a second project in progress: portraits of collaterals—unintentional casualties of war—as "a kind of dark star" to his truth-tellers. He hopes to bring the blurred faces of nameless victims into focus.

"Perhaps it would be a good idea to show the picture on worldwide television each night of one mother or one little girl, one boy or one father, one pine warbler, one right whale, one mahogany tree targeted for the next day's collateral damage—and then let the world agonize over whether this life should be taken."

What can we do? Shetterly encourages us all to act with sustainability in mind; "Each generation inherits a shrinking world—more meager morally, spiritually, philosophically, and ecologically. To embrace the fine, rhetorical flourish of unalienable rights is to accept wholeheartedly the burden of unavoidable responsibilities." Though not easy work, one look at his assemblage of truth-tellers is enough to restore hope in the possibilities for our future.

FMI on Shetterly and his work, visit www.americanswhotellthetruth.org

False Alarm: a true story

We arrived with Rob at the lecture hall to set up his paintings, and found the lights turned off. We all felt around for the light switch — fumbling through the darkness, patting down the walls — with no luck, until suddenly an alarm was blaring and lights were flashing. Rob had mistaken a fire alarm panel for a light switch! The building evacuated and Rob, dressed to the nines, threw his arms up, announcing, "It was me. I did it!" Eventually the fire trucks left and we could reenter the building but we were still left in the dark! After some panicked phone calls, magic key codes, and the arrival of a superhero custodian: we had lights. Thankfully, we can laugh about it now and the rest of the lecture went off without a hitch (or a fire!).

In Memoriam



Randy Alford, Honors College Faculty



Dr. Arthur Randall "Randy" Alford passed away February 9, 2009. Randy was born in Baton Rouge, LA, on October 31, 1953, to Arthur Travis Alford and Hilda Simmons Alford. He received his B. S. from the University of Southern Mississippi followed by his Master's and Doctoral degrees in entomology from Louisiana State University. Randy came to the University of Maine as an Assistant Professor of Entomology in 1982. His research focused on the chemical ecology of insects, working on insect attractants and sex pheromones during his Ph.D. and post-doctoral studies. During his 26-year career at UMaine, Randy served as Chair of the Department of Entomology and Chair of the Applied Ecology & Environmental Sciences Department. He was instrumental in establishing the Sustainable Agriculture Program at UMaine in 1986 and developing the Potato Ecosystem Project in 1992. For five years he served on the UMaine Honors Council, and was a dedicated faculty mentor in the Maine Upward Bound program, which assists high school students with economically disadvantaged backgrounds. Randy's first academic love was entomology and he worked from 1996 to 2007 to preserve the legacy of Maine's most renowned entomologist, Dr. Edith Patch, through the development of the Edith Marion Patch Center for Entomology, the Environment and Education. Randy was Professor of Entomology in the School of Biology and Ecology at the time of his departure from the UMaine in 2007 due to illness. Randy bravely dealt with the devastating effects of multiple sclerosis for many years, but continued to share laughs and provoke thought for students and colleagues alike. Randy is survived by his wife, Jo Carol Alford; mother, Hilda Alford; children, Travis, Elliot, and Olivia Alford; their mother, Susan Tomlin; stepdaughter, Leah Harris; and brother, Rick Alford. (Reprinted with permission from Eleanor Groden)



Randy Alford was a dedicated Honors College faculty member during his career at the University of Maine. He taught in the Honors Civilizations sequence, facilitated third-year tutorials, served on several thesis committees, and was a member of the Honors Council. In 2004, he shared his "hometown" of New Orleans, LA with our staff and students for the National Collegiate Honors Council conference. Randy also loved to cook Southern food and treated students to 'gator gumbo after finals.

HONORS INDEX*

2009 Honors Graduates at a Glance

Number of graduates featured in this issue of MINERVA: 68

Number of Honors classes preceding the class of 2009: 72

Number of graduates from Maine: 51

Number of graduates from states other than Maine: 16

Number of international students: 1

Average GPA of 2009 graduates: 3.750

Number of graduates who earned degrees from Natural Sciences, Forestry & Agriculture: 22

Number of graduates who earned degrees from Liberal Arts & Sciences: 39

Number of graduates who earned degrees from Business, Public Policy & Health: 3

Number of graduates who earned degrees from Engineering: 3

Number of graduates who earned degrees from Education & Human Development: 2

Percentage of Class Salutatorians: 100

Percentage of Honors graduates in Phi Beta Kappa: 43

Number of graduates in Phi Kappa Phi: 16

Number of Resident Assistants: 7

Percentage of graduates who lived in Honors housing for at least one year: 45

Number of graduates with a family member who graduated from Honors: 3

Percentage of graduates who worked while in school: 75

Number of graduates who went on at least one Honors trip: 18

Percentage of graduates who studied abroad: 26

Number of graduates who had the Dean of the Honors College on their thesis committee: 11

Percentage of graduates with at least one minor: 54

Number of graduates who completed an internship with NASA: 2

Percentage of graduates who published as an undergraduate: 11

Number of graduates staying at the University of Maine for graduate work: 15

Special Recognition

The Honors College would like to recognize the following Honors College students for their outstanding achievements during the 2008-2009 academic year. Congratulations!

Salutatorian:

Alexandra E. Albert '09 (Mollecular & Cellular Biology, Biochemistry)

Oustanding Student, Natural Sciences, Forestry & Agriculture: **Ashley L. Gard '**09 (Biology, Biochemistry)

Outstanding International Student, Business, Public Policy & Health: **Alexandra Sasha Misan '**09 (Business Administration – Finance)

The Honors College annually recognizes Honors students with these special awards:

The John Ferdinand Steinmetz Memorial Award was established in 1962 by the parents and two sisters of the late John Ferdinand Steinmetz of the Class of 1943. The income of this fund is to be used annually as an award for first-year Honors students demonstrating outstanding characteristics and appropriate need.

Maryam Ansari '12 (Biology)

Elizabeth Kevit '12 (Journalism – News Editorial)

Alise Ranalli '12 (Communication Sciences & Disorders)

Keri West '12 (English, History)

The Robert B. Thomson Memorial Awards were established in 1984 by family and friends. The income from the fund is awarded to outstanding Honors College juniors majoring in Political Science and in Art.

Danielle Armitage '10 (Art Education, Studio Art)

Sara Biron '10 (Studio Art)

Hilary Fernald '10 (Political Science, Economics)

Jessica Snow '10 (Studio Art)

Samantha Shulman '10 (Political Science)

Dustin Morgan '10 (Political Science, Philosophy)

The Honors College Service Award is presented to one or more graduates of the Honors College recognizing outstanding commitment and contributions to the University of Maine Honors community. The award is supported by gifts from our graduates.

Matthew Fields '09 (History)



ALEXANDRA E. ALBERT Molecular and Cellular Biology, Biochemistry Microbiology

Eagle Lake, ME Fort Kent Community High School

The Changing Face of Candida albicans: Innate Immune Response Dynamics

Advisor: Robert Wheeler

Thesis description: I researched interaction between *Candida albicans*, an opportunistic pathogen, and the immune system. *C. albicans* is a ubiquitous fungal organism that causes infection in immunocompromised populations. It is the fourth most common cause of nosocomial bloodstream infection in the U.S., with a mortality rate of 35%, and is highly drug resistant. I studied the mechanisms utilized by neutrophils, a type of white blood cell, to alter the cell wall of *C. albicans*, allowing enhanced immune recognition and pathogen elimination. I hope this study will lead to a better understanding of mechanisms used by neutrophils to fight infection in general.

Future Plans: To pursue an M.D./Ph.D., with the hopes of one day contributing to the field of translational research.



ERICA F. BERRY

Mass Communication

Spanish, International Affairs

Randolph, ME Gardiner Area High School

A Comparative Study of African American Representations in Film From Original to Remake as Influenced by the Civil Rights Movement

Advisor: Paul Grosswiler

Thesis description: This study examines the Civil Rights movement in the U.S. and how, and if, it correlates with changing representations and stereotypes of African Americans in film from the late 1960s to today. By recognizing traditional representations of African Americans and identifying their use in two films in particular, *Guess Who's Coming to Dinner* (1967) and its remake, *Guess Who* (2005), I use a combination of content analysis and ideological criticism to compare the representations and stereotypes in the films. My data shows that traditional representations are either removed or racially reversed and attributed to the adverse racial group in an attempt to dismiss their use and offer new concepts of racial equality.



JUDI L. AZEVEDO
Biology
Chemistry

Swansea, MA Joseph Case High School

Cross Talk Between Cell-Cell and Cell-Matrix Adhesion
Pathways Underlies the Robustness of Muscle
Development in Zebrafish Embyros

Advisor: Clarissa Henry

Thesis description: Studying muscle development has major implications for understanding muscle diseases, such as the muscular dystrophies. I explored the ways short round muscle cells elongate into long, fully functional muscle fibers. For this to occur efficiently, cells must be able to adhere both to neighboring cells and the surrounding extracellular matrix. This sets up the possibility of cross talk (type of molecular communication) between these adhesion pathways. Using a zebrafish model system, we were able to demonstrate the role of cross talk between the two adhesion pathways in muscle development.

Future Plans: I will enter the molecular medicine Ph.D. program at the University of Maryland Baltimore.



TEGAN LENA GRACE COLLEY History Political Science

Hanover, PA Hanover High School

Prostitution in New York City in the Mid 1800s as Recorded by James Gordon Bennett and Dr. William W. Sanger

Advisor: Mazie Hough

Thesis description: My thesis explores the opinions of James Gordon Bennett, editor of the *New York Herald*, and of Dr. William Sanger, resident physician at Blackwell's Island Hospital, concerning prostitution in New York City. Bennett covered the murder of a young prostitute, and expressed opinions on the subject in his articles. Sanger wrote a comprehensive history of prostitution all over the world with an emphasis in New York City. Although Bennett and Sanger wrote decades apart, both concluded that men were largely to blame for women entering prostitution, and reprimanded society for doing nothing to help.

Future Plans: I hope to work in a museum in Harrisburg, Baltimore, or D.C. before attending grad school.

PROFILES



ABIGAIL JANE COULTER
Theater
Psychology

Yarmouth, ME Yarmouth High School

Just the Beginning: An Actress's Search for Self Advisor: Sandra Hardy

Thesis description: This is the written portion of a five-month self-exploration process. During the audition, rehearsal and performance period of the musical *Side Show*, in which I played a principal character (Daisy Hilton), I recorded my experiences, interactions, reactions and emotions. Using the journals, I reflected on my memories to learn about myself as an actress, artist and woman. I assess my acting growth by gauging it against the teachings of the late, great actresses and teachers Uta Hagen and Stella Adler. My personal growth is evident in the maturity I gain when interacting with my peers and my ability to identify, assess and set aside two unhealthy needs.

Future Plans: I will attend the University of Virginia master's in higher education program and pursue my doctorate after working in student affairs for a few years.



ELIZABETH ROSE DAMON
Psychology
Dance

Gorham, ME Gorham High School

A Dancer's Look at Nonverbal Communication to Create a More Natural Work of Art

Advisors: Ann Ross & Cynthia Erdley

Thesis description: This thesis consisted of a research paper on nonverbal communication and gestures as well as a log of my own personal gestures. I then used a number of these personal gestures to create a dance that was unconstrained by boundaries such as dancer/choreographer interpretation, performance space, music, or foreign movement.

Future Plans: Since graduation, I have been working as a Residential Specialist in a group home for teenage girls. In the fall, I will be attending Antioch University of New England for Dance Movement Therapy.



LYDIA BLUE DAWSON Psychology

Calais, ME
Maine School of Science
& Mathematics

The Pillowman; as Produced by the Experimental Black Box Theatre

Advisor: Tom Mikotowicz

Thesis description: In this creative thesis, I directed and produced three performances of *The Pillowman* by Martin McDonagh in the Black Box Theatre. I used the limitations of the space to experiment with alternative staging. The script explores violent concepts including infanticide and crucifixtion, intensifying the greater themes of censorship and government control. To show the essence of these events without losing the audience, I used shadowplay and illustrated projections to separate the main character from his memories and stories. Donations by the large audiences who came enabled us to make a large donation to the National Coalition Against Censorship.

Future Plans: I will attend Roger Williams University School of Law.



SUSAN P. DEVINE Microbiology

Richmond, RI Chariho Regional High School

Characterization of Bacteria Associated with Two Populations of Elysia chlorotica

Advisor: Mary Rumpho

Thesis description: The sea slug *Elysia chlorotica* establishes an obligate symbiosis with chloroplasts obtained from its algal food source *Vaucheria litorea*, allowing it to photosynthesize for up to ten months. I focused on the characterization of bacteria associated with *E. chlorotica* to see whether bacterial species differed between two geographically distinct populations of sea slug, and whether the bacteria provided any essential nutrients. Analysis of bacterial DNA identified several bacterial species associated with the sea slug as well as differences between the two types. Bacteria of possible metabolic significance were also characterized from both populations of *E. chlorotica*.

Future Plans: I will attend graduate school at UMaine in microbiology.



ALLISON J. DORKO Kinesiology & Physical Education

Skowhegan, ME Skowhegan Area High School

An Analysis of Resistance Stretching and an Amino Acid Supplement in an Elite Female Swimmer

Advisor: Nellie Cyr

Thesis description: My thesis analyzed how Dara Torres, an Olympic silver medalist at the age of forty-one, maintained world-class sprint freestyle performance in her "old age." The thesis focuses specifically on her amino acid supplement and her resistance stretching program.

Future Plans: I will attend the UMaine Master of Science in Teaching (M.S.T.) program and pursue a career as an elite triathlete.



ILEA LOTTIE ENOS

Zoology

Equine Sciences

Plymouth, MA Plymouth North High School

New Zealand Natural History and its Impact on Native Bird Species

Advisor: William Glanz

Thesis description: I studied how New Zealand was formed and when. Both were key factors in what flora and fauna immigrated there. Long isolation and no terrestrial mammals led to the evolution of endemic flightless bird species, and to a delicate, specialized system. Since human arrival, 32% of native land birds and 18% of marine birds have become extinct and 44% of the remaining species are listed as threatened, the highest in any country. I analyzed efforts to stabilize and recover threatened species like the kakapo, the kiwi, and the black robin. Captive rearing, cross fostering, and relocation to safe islands are common strategies, but it is too soon to know what can be saved.

Future Plans: After working for a couple years, I will look into graduate school or specialized training.



MATTHEW D. FIELDS

History

Political Science

Sandyston, NJ Blair Academy

Sic Hobbitur Ad Astra: Platonic Reflections in J.R.R. Tolkien's The Lord of the Rings

Advisor: Tina Passman

Thesis description: This work is a study of Platonic reflections within Tolkien's work. Tolkien despised allegory as a low form of story telling. Hence, this is not a discussion of Tolkien's allegories within *The Lord of the Rings* but of his Platonic reflections shown within the text, which include The Rings of Gyges and Sauron, Aragorn as the Philosopher King, and Justice as defined by hobbits, for example. This paper discusses the "echoes," of Platonic education apparent within Tolkien's writing and shows that Tolkien, intentionally or not, introduced many Platonic ideas, concepts and images into *The Lord of the Rings* from Plato's *Republic*.

Future Plans: I will earn my master's in history from UMaine and hope to become a teacher.



SARAH FLYNN International Affairs French

Blue Hill, ME George Stevens Academy

What Does it Take to End Sectarian Struggle?

A Case Study of Northern Ireland

Advisor: Paul Holman

Thesis description: This thesis examined the necessary conditions for peace making specific to the 1998 Belfast Agreements in Northern Ireland. I examined the context and conditions of the Agreement. I examined each political and governmental party involved including their beliefs and goals. I concluded that in the Northern Irish case, the context in which the agreement was made was more significant than the actual substance of the Agreement based on previous peace agreements and their contexts.

Future Plans: I hope to spend some time working for the Peace Corps, Americorps, or for a few campaigns before attending law school in the next 5 years.



MATTHEW JOHN LOMBARD FOWLER Mechanical Engineering Mathematics

Presque Isle, ME Presque Isle High School

Design and Finite Element Analysis of a Cross-Flow Turbine Hub-Blade Connection

Advisor: Michael Peterson

Thesis description: I designed a connection technique for attaching the composite blades of a cross-flow tidal turbine to the metal hub by modifying a technology used in wind turbines. The design was evaluated using a numerical computer technique known as finite element analysis where the blade is broken into thousands of small pieces which are individually analyzed. By combining the reactions of the small pieces, a study of the whole model could be completed. This project lays the groundwork for more detailed studies into the design and manufacturing details associated with creating the blade-hub connection.

Future Plans: I plan to work at Electric Boat in Groton, CT for a few years in solid mechanics before pursuing graduate school in mechanical engineering.



KARIS ANN GALE International Affairs, Anthropology

Wilbraham, MA Minnechaug Regional High School

Understanding Gaza; Patterns and Trends in News Coverage that Aid and Inhibit the Portrayal of the Insider's Perspective

Advisor: Paul Grosswiler

Thesis description: This thesis aimed to present a deeper knowledge of the different ways in which Gaza's story is told and how difficult a global understanding of Gaza's situation is to obtain due to the varying agendas, misconceptions, assumptions and incomplete pictures that can be found in these major news publications. In this analysis, five major news publications were considered that represent American, British, Israeli and Palestinian perspectives. The anthropological perspective guided the analysis by emphasizing the questions that journalists can ask in order to obtain an insider's perspective.

Future Plans: Working for a year and applying to schools of osteopathic medicine



BENJAMIN G. FREEDMAN Biological Engineering, Chemical Engineering Premedical Studies

Caribou, ME
Maine School of Science
& Mathematics

Pichia stipitis Fermentation of Green Liquor Extracts Following Acetic Acid Extraction Through Solutions of Tri-N-Octylphosphine Oxide and N-Undecane

Advisor: Peter van Walsum

Thesis description: I designed and modeled a solvent separation system for hemicellulose extracts produced at the Old Town Fuel and Fiber mill under the van Heiningen Process. Using a new solvent system and experimental lab data, I showed that acetic acid could be separated and re-sold for substantial profit over capital and operating expenses. I also performed laboratory trials to test fungal fermentation on the resulting stream, which indicates that acetic acid removal should promote cell growth and improve profitability over the base case.

Future Plans: I will attend Virginia Tech for my Ph.D. in biological systems engineering to study renewable fuels or specialty chemicals using living systems.



ASHLEY L. GARD Biology, Biochemistry

Houlton, ME Houlton High School

Neuropeptide Paracrine/Hormone Discovery in the Water Flea Daphnia pulex and the Pacific White Shrimp Litopenaeus vannamei Using Transcriptomics and Immunohistochemistry

Advisors: Andrew Christie & Sharon Ashworth Thesis description: The water flea *Daphnia pulex* and the Pacific white shrimp *Litopenaeus vannamei* are two ecologically valuable crustaceans. Since little work has previously been done to explicate the neuropeptides of these organisms, I have undertaken a large-scale investigation focused on elucidating the neuropeptidome of *D. pulex* and *L. vannamei* by combining transcriptomics, immunohistochemistry, and mass spectrometry. The data catalog an extensive array of putative peptide paracrines/hormones and provide a foundation for future physiological studies.

Future Plans: I will work as a research technician before continuing on to a graduate program in neuroscience.



SARAH ELIZABETH
GARDNER
Elementary Education

Barrington, RI Barrington High School

Turn Up the Volume on Awareness:
Noise-Induced Hearing Loss in Adolescents

Advisor: Kathleen Ellis

Thesis description: For my thesis I did extensive research on Noise-Induced Hearing Loss, NIHL, in children ages 6-18. I used the literature to implement a student survey for fourth and fifth graders in Old Town, created 15 lesson plans that would be part of a sound and volume science curriculum for first-fifth grade, and wrote, filmed, and produced an informational video featuring first and fourth graders on the effects and prevention of NIHL in classrooms nationwide.

Future Plans: I am moving back to southern New England, either Rhode Island or Boston and pursuing a career as a K-2 teacher. Once established in a public school, I would like to get my graduate degree.



CORINNE N. GRANT Biology

Morrill, ME Belfast Area High School

Acetylcholine Induced Membrane Potential Oscillations in Xenopus laevis Oocytes

Advisor: Harold (Dusty) Dowse

Thesis description: The increase in ultraviolet-radiation reaching Earth's surface is believed to play a role in the loss of amphibian species. Health can be determined by measuring the ion channel functionality of the amphibian oocyte membrane. We used acetylcholine to induce a membrane potential oscillation in *Xenopus laevis* oocytes. No other study has used modern data analyses to determine oscillation rhythmicity. This study determined the period of the oscillation to be from 30 to 70 seconds. Future research can be done using this protocol to determine the effect of ultraviolet radiation on these induced oscillations.

Future Plans: After earning my doctor of osteopathy from the University of New England, I hope to stay in Maine and practice medicine in a rural community.



MORGAN S. A. GILMAN Microbiology

Orrington, ME Sumner Memorial High School

Actin-based Motility of Mycobacterium marinum Within Cultured Porcine Proximal Tubule Cells

Advisor: Sharon Ashworth

Thesis description: Mycobacterium marinum is an acid fast bacterial marine pathogen that causes opportunistic infections in humans. We found that it is able to infect mammalian proximal tubule cells, using a porcine LLC-PK L10 cell line, and that actin-based motility is utilized by M. marinum within these cells. This was seen with a confocal microscope, as the cellular actin and actin tails were stained with rhodamine phalloidin. We stained for two actin associated proteins, cofilin and tropomyosin-1, to determine their involvement in the formation of the actin tail. While tropomyosin was not found to localize to the actin comet tails of M. marinum, the role of cofilin remains unclear and will be the subject of future studies.

Future Plans: I will get my Ph.D. in microbiology at UMaine.



RUTH ROSE HANSELMAN

English

Psychology

Bangor, ME Bangor High School

The Romance of Suffering: Surviving Mental Illness in a World Obsessed with Fame, Beauty, and Self Destruction

Advisor: Margery Irvine

Thesis description: I always hoped to be famous and as I reflected on my lifetime quest for the spotlight, I realized I was not alone. The thirst for fame marks my generation. In my thesis, I explored the cultural connection between obsession with fame and preoccupation with mental illness. Half personal narrative and half critical essay, my thesis relies on my own experiences and the experiences of others. I used memoirs and other nonfiction writing to support my assertion that until we create a world where people are celebrated for who they are, not how famous they are, many will continue to turn to substance abuse, eating disorders, and other harmful behaviors to get attention.

Future Plans: After working for a year, I hope to begin graduate school in psychology in the fall of 2010.

Profiles



KATHERINE C. HASSETT

Economics

French

Yarmouth, ME Yarmouth High School

The Circle Game: Environmental Concern and Outdoor Recreation in Maine

Advisor: Mario Teisl

Thesis description: Studies on the correlation between environmental concern and outdoor recreation have historically operated under two different models: with environmental concern acting as a predictor of outdoor recreation and conversely, with outdoor recreation acting as a predictor of environmental concern. Through the use of simultaneous linear regression techniques, I explore the possibility that the direction of causation between these two variables functions not in either direction independently, but in both directions as part of a model which allows for a reciprocal relationship between environmental concern and participation in outdoor recreation.

Future Plans: I plan to pursue a M.S. in resource economics and policy at UMaine.



SYLVIA HERBOLD Studio Art

Bangor, ME Bangor High School

Mothers and Daughters: Art Aimed for Change

Advisor: James Linehan

Thesis description: I did a painting called Mothers and Daughters for the Women's Resource Center at The University of Maine. The portraits are of my mother, sister, grandmother, and me. Mothers and Daughters is about how the stories our mothers and grandmothers share with us become part of our own experiences. Their wisdom provides reference points throughout life. I also researched art activism. Part of my research included interviewing Robert Shetterly and Tilly Woodward.

Future Plans: I am going into a graduate program in elementary education at the University of Maine.



RACHEL EDNA HOLDEN English, German

South Paris, ME Oxford Hills High School

Snapshots: A Collection of Short Stories

Advisor: Dave Kress

Thesis description: I wrote seven short stories titled *Jack*, *Claire*, *Charlie*, *Penny*, *Horace*, *Edna*, and *I*. Each story focuses on the title character, creating a collection of works that can be read as individual stories, or taken as one work. These are everyday people at a snapshot moment in their lives. I show connections between people by creating connections between characters and overlapping certain characters between stories. In each story I focus on the specific character, dealing with their emotions, thoughts, actions, and general characteristics. I used my knowledge of creative writing to push myself out to the edges of my abilities, and I think it worked.

Future Plans: The future is open and very exciting. I would like to return to Europe, and someday own an awesome bookstore, but there's plenty of time for that!



JESSICA A. JAMES
Political Science
Pre-Law

Hanover, ME Telstar Regional High

A Study of the Gender Dynamic in Congressional Campaigns in the State of Maine

Advisor: Richard Powell

Thesis description: Despite progress made towards equality, women are extremely underrepresented in the U.S Congress. Contemporary studies on women as candidates fall short of explaining why so few women are elected. This study demonstrates how women candidates running in Maine are more successful due to the gender dynamic and political environment. I include a review of existing literature on women as candidates, a description of Maine's political environment, and case studies on the Congressional campaigns of Margaret Chase Smith and Susan Collins. I hope to foster research to improve the likelihood of women successfully running for political office.

Future Plans: I plan on moving to D.C. to work for Senator Susan Collins and returning to Maine for law school.



ELYSE M. KAHL Journalism Psychology

LaGrange, ME Penquis Valley High School

The Effects of the Kitty Genovese Murder on Journalism, Psychology, and American Culture

Advisor: Paul Grosswiler

Thesis description: The 1964 murder of a NYC waitress, stabbed on the street while a reported 38 witnesses looked on and did nothing, became an urban legend that began with an article in the *New York Times*. The murder impacted journalism, psychology, and American culture. The apathy of the witnesses shocked psychologists and the public. The murder spawned articles and psychological research into public apathy. Psychologists Bibb Latane and John Darley conducted public apathy experiments and created the bystander effect. Many people questioned the accuracy of the *NYTimes* article, but even critics agreed that without the sensationalism, it would not have had such impact.

Future Plans: I hope to find a reporting or writing job in Maine and would also love to travel.



SANDRA KLAUSMEYER
Anthropology
Business Administration

Steuben, ME Sumner Memorial High School

The Millstone: An Historical Archaeological Artifact

Advisor: Warren Riess

Thesis description: I researched grain milling devices throughout history, ending with large disc millstones. I found that as the styles of the grain milling devices changed from one type to another, the societies around them were changing as well. I found a local (within Maine) set of millstones in order to study certain stylistic details to determine whether the stones can offer any information within an archaeological site.

Future Plans: I plan to go to graduate school.



LINDSAY KEENER-ECK Wildlife Ecology

Bel Air, MD Bel Air High School

Predation by Caddisfly Larvae (Family: Phryganeidae) on Ambystoma macylatem Egg Masses in Maine (USA) Vernal Pools

Advisor: Aram Calhoun

Thesis description: I found through a literature review that little is known about the ecology of larval caddisflies in vernal pools and their interactions with the pool community. I designed a survey that was completed by volunteers from environmental consulting firms to get a better idea of the distribution of these larval caddisflies in Maine vernal pools. I designed a lab and a field experiment that will be done in the next few years. This work will give us data on what types of caddisfly larvae are the biggest threat to the salamander egg masses and to what extent they are capable of destroying egg masses in vernal pools.

Future Plans: I am researching an endangered bat species in upstate NY and I hope to attend graduate school soon.



AMY MARIE KNOWLTON
Busines Management

Abbot, ME Piscataquis Community High School

The Way Customer Service Should Be: An Analysis of Maine Restaurants

Advisor: Carol Gilmore

Thesis description: I researched the elements of customer service and their relationship to customer satisfaction and loyalty in the restaurant industry. My goals were: to develop my own definitions of customer satisfaction and loyalty through research, interviews, and observation; to compare the restaurant owner's perspectives of their operations to actual customer experiences; and to build knowledge and experiences that will be used when developing the business plan for my future restaurant. I found that all elements of customer service work together to create a positive guest experience, leading to customer satisfaction and building loyalty.

Future Plans: I will work to gain business experience and hope to open my own restaurant in Maine.

Profiles



KATIE LATTARI
English
Creative Writing

Brooklyn, NY and Winterport, ME Hampden Academy

Spaces in the Soup: A Collection

Advisor: David Kress

Thesis description: The collection of short stories found in my creative thesis focused on the working-out and evolution of my strengths, weaknesses, and penchants as an aspiring fiction writer. The 18 pieces in the 60-page collection explore different avenues of the craft and philosophy of fiction-writing that seemed investigation-worthy to me, with a spectrum ranging from experimental flash fiction to familiar short story narratives. The thesis and collection as a whole serves as both a snapshot of "Where I Am Right Now" as an aspiring fiction writer, as well as documentation of the new and the familiar places I went to in my fiction over the last year or so.

Future Plans: I will be entering the master's program in English at UMaine with a Teaching Assistantship.



DEVON COURTNEY MALAY Animal and Veterinary Sciences Pre-Veterinary Sciences

Sebec, ME Mansfield High School (MA)

The Optimal Culturing Method for Bovine Placental Lactogen

Advisor: Charles Wallace

Thesis description: Bovine placental lactogen (bPL) is produced in the placenta of the pregnant cow, and is found in fetal and maternal metabolisms. The true nature of the hormone remains unknown; but, research has shown that it plays a role in feed intake, mammary growth and development, and increasing milk production. A reliable culturing method for the hormone would allow for more hormone for future research. I obtained and slaughtered a pregnant cow, and removed tissue samples to try to culture the hormone. The cells that produce the hormone died in under a week, but we discovered possible improvements for future research into optimal culturing methods for bPL.

Future Plans: I will work on my family's dairy farm this summer, then work before going to nursing school.



GRETA M. LEBER

Marine Science

Mathematics. Earth Science

South Berwick, ME Marshwood High School

Seasonality in the Gulf of Maine from Sea Surface Temperature 1956-2008

Advisor: Neal R. Pettigrew

Thesis description: I merged sea surface temperature data from lightships, the National Data Buoy Center, and the Gulf of Maine Ocean Observing System for the Gulf of Maine (GoM) from 1956-2008. The GoM is warming at a rate much faster than air, and similar to trends in the Arctic. I looked at how the GoM was warming over the seasonal cycle by dividing it into five regions and performing a harmonic analysis by decade by region. I found that certain regions warm in the summer, and others in the winter. The period of greatest warming coincides with peak flow of water masses from the North and may be triggered by advection of warmer water from the North.

Future Plans: I will attend the University of Miami for an advanced degree in Physical Oceanography.



KERRY JANE MALCOSKY
Spanish

Orland, ME George Stevens Academy

La Problematica de las FARC en Colombia: The Guerrilla Group, its Roots, and its End

Advisor: Gene Del Vecchio

Thesis description: An in-depth look at of the guerrilla group the FARC (Las Fuerzas Armadas Revolucionarias de Colombia (The Armed Revolutionary Forces of Colombia)), my thesis explores the origins of the movement and the evolution to its modern state. Specifically, I research how violence, extortion, drug running, and politics were combined to create what was considered a viable threat to the Colombian government. I analyze the effects of the FARC on the Colombian population and how its image has changed over the decades. Finally, I make suggestions on how to bring an end to the FARC, concluding that social change is the best option.

Future Plans: I plan to attend medical school in a few years after taking some time off to travel first.



SUSANNE T. MALLON **Communication Sciences & Disorders** Child Development & Family Relations

Springvale, ME Sanford High School

A Review of the Parental Behaviors and Environmental Factors that Promote Literacy Development **Advisor:** Judy Stickles

Thesis description: I studied factors impacting literacy development. Parents from a Maine elementary school completed a survey about parental facilitation of literacy activities. Responses were analyzed based on the corresponding student's literacy achievement scores. The majority of the factors suggested as possible predictors of literacy success did not seem to impact the student's literacy achievement. The results from this study are not concurrent with previous studies, but show that parents understand the importance of providing a supportive literacy environment, promoting literacy interest, and implementing literacy activities into daily routines.

Future Plans: I will attend UMaine for my master's degree in communication sciences and disorders.



MICHELLE A. MARTIN Anthropology

Patten, ME Katahdin High School

Regulated to Death? Exploring the Maine Groundfish Decline and Groundfishermen's Decisons Advisor: James Acheson

Thesis description: I used surveys of Maine groundfishermen who fished during the era of groundfish stock decline to illustrate the failure of regulatory bodies, the undue influence of powerful industry members on the rule-making process, the decision-making choices of Maine fishermen, and the unequal distribution of the negative consequences of the decline on different groups of fishermen.

Future Plans: After working for the summer as the Student Coordinator for the Black Bear Exchange (the thrift store and food pantry that I established at UMaine), I will continue to explore food security, sustainable agriculture, and environmental education as my career & life paths.



TYLER J. MARTIN Finance

Barrington, RI Barrington High School

Real Option Valuation and the Black-Scholes Pricing Model

Advisor: Robert Strong

Thesis description: My thesis examines how a real options model combined with traditional valuation methods, allows management and investors to have a more realistic value of the firm than with traditional techniques alone. The extra valuation that real options provide is what is needed to make sound financial and investment decisions for start up companies.

Future Plans: In the short term I plan to attend graduate school and go for my M.B.A., and long term I would like to become a financial analyst and or portfolio manager.



AIMEE L. MASSEY **Biology** Neuroscience

Winslow, ME Winslow High School

To See or Not To See: Probing Human Color Perspection Using Subpixels of Light

Advisor: Leonard Kass

Thesis description: I tested human color vision by probing the human fovea with subpixels of colored light. There is a region in the fovea that is void of receptors that absorb short wavelengths, such as blue. I stimulated this region with blue, green, and red light to see if discrepancies in blue color vision could be observed. Researchers have assumed that no discrepancies in blue color vision could be shown because of the small area of the blue blind spot and neural compensation that acts to enhance perception, but I showed there is a significant difference between how well subjects perceive blue light compared to red and green.

Future Plans: After interning at the Cognitive Evolution Laboratory at Harvard, I plan to attend Cambridge University to earn a M.Phil. in applied biological anthropology.



HELEN E. MATTSSON Molecular and Cellular Biology

Scarborough, ME Scarborough High School

Characterization of Bacterial Populations Living in Assiociation with the Sea Slug, Elysia chlorotica Advisor: Mary Rumpho

Thesis description: This research characterizes bacteria living as ecto- and endo-symbionts with two populations of the sea slug *Elysia chlorotica* from Martha's Vineyard Island, MA and Halifax, Nova Scotia and their role as a potential source of vitamins, trace minerals, and other nutrients. Bacteria known to fix atmospheric nitrogen and synthesize vitamin B12 were identified in both sea slug populations. These nutrient-supplying bacteria may explain how the sea slugs are able to suistain themselves by photosynthesis with the chloroplasts of their algal food source, *Vaucheria litorea*.

Future Plans: Short term: Attend graduate school at King's College in Wilkes-Barre, PA to study physician assistant studies. Long term: Practice in southern Maine.



ALEXANDRA SASHA
MISAN
Finance

Irkutsk, Russia and Holden, ME

The Effect of Birth Order on Financial Risk Taking Advisor: Robert Strong

Thesis description: My research explored whether there is a connection between birth order (first-born, middle child, only child, etc.) and attitude toward financial risk. I researched characteristics typical to each birth order and what their attitudes are toward general risk through various literature. The majority of my thesis work concentrated on compiling a questionnaire that asked people birth-order related questions and various financial risk attitude questions. I analyzed all respondent data to find whether the actual correlation between birth order and financial risk attitudes exists.

Future Plans: I want to find a job in the financial industry in the Boston area and plan on eventually pursuing a graduate degree, either an M.B.A. or master's in finance.



ISAAC MICHAUD

Mathematics

Secondary Education

Fairfield, ME Lawrence High School

Static Heterogeneous Recovery Rates in a Household Model Advisor: David Hiebeler

Thesis description: An epidemiological household model was generalized to study the effect of population variation on epidemics. A household model describes the progress of a disease through a population of interacting communities. This research removed the previous assumption that all individuals recover at the same rate by studying the case when communities recover at different rates. The variation of recovery rates highlights the differences between communities that could be caused by genetic variability, disparities in access to healthcare, etc. I show that this variation results in increased likelihood and severity of an epidemic, and that the original assumption leads to predictions that underestimate the extent or severity of an outbreak, possibly leading to an insufficient response.

Future Plans: I plan to attend graduate school.



PAIGE M. MITCHELL

English

Creative Writing,

Business and Professional Writing

Orono, ME Orono High School

On the Mouth

Advisor: David Gross

Thesis description: My thesis is a compilation of various experiments in fiction, visual writing, and a critical introduction. I wrote mostly short pieces using techniques I have learned about surrealism, dream logic, altered texts, modernism, European avant-garde, and postmodernism. I then alternated this writing with paintings done by my two-year-old to produce a visually pleasing and uncomfortable effect.

Future Plans: I will attend graduate school at UMaine in English as a teaching assistant, continue to work for the Puckerbrush Review, the Franco-American Centre, and the Literacy Volunteers of Bangor, as well as raise my daughter to be a future Honors College graduate.



SARAH MORRISSEY International Affairs Anthropology

Eliot, ME Marshwood High School

Tajikistan: A Possible Link Between the United States and Iran

Advisor: Paul Holman

Thesis description: I examined the way that a small country in Central Asia, Tajikistan, could serve as a possible link between the U.S. and Iran. Tajikistan is a country plagued by drug trafficking, a situaiton which both the U.S. and Iran wish to stop. I argue that the possibility of the U.S. entering into diplomatic relations with Iran is possible now more than ever due to President Barack Obama's stated willingness to begin talks. I argue that if the two countries could focus on a common issue, such as the drug trafficking in Tajikistan, than the possibility for a stable relationship to grow betwen them will become more probable.

Future Plans: I plan to look for a federal job in the Boston area and ultimately enroll in grad school to pursue international affairs with a focus on Central Asian studies.



THOMAS MYERS
Communication Sciences & Disorders

Plantsville, CT Homeschooled

Phonotactic Probability Effects in the Naturalistic Speech of a Child Who Stutters: A Case Study

Advisor: Nancy Hall

Thesis description: My thesis looks at a language sample of a 3 1/2-year-old girl who stutters. I look to see if she stutters more often at the very beginning of the sample, or at the very end of the sample. The literature shows she'll stutter more often at the end, so I will examine the sounds she produces, and see if she uses more complex sounds where she stutters more often, as there's a possible relationship between using more complex sounds and more disfluent speech.

Future Plans: I plan on attending graduate school in the fall at UMaine. My long term goal is to become a Speech Language Pathologist, with a focus in fluency.



ABBY R. MORROW

Spanish

Philosophy

Ellsworth, ME Ellsworth High School

Carnival in Galicia (El Entroido en Galicia)

Advisor: Kathleen March

Thesis description: My thesis is about carnival in Galicia, an autonomous region in Spain. Carnival is celebrated all over the world as a time to indulge before fasting for Lent. The festival in Galicia is specific to the area and emphasizes aspects of the culture. It is an opportunity for people to let loose and express themselves, but the celebration has structure, which prevents it from becoming a festival of complete hedonism. Through Mikhail Bakhtin's interpretation of carnival, my thesis explores the origins of the celebration, its cultural significance, and how carnival in urban Galicia has become modernized due to influences from other cultures. Considering these influences, I contemplate what the future implications are for carnival.

Future Plans: I will teach English in Suwon, South Korea and I'm excited to experience a new culture.



SEAN JOSEPH O'CONNOR Philosophy, Psychology

West Haven, CT Notre Dame of West Haven

Nietzsche's Conception of Truth and Knowledge

Advisor: Jeff White

Thesis description: I evaluated the major interpretations of Nietzsche's epistemology, including Clark, Wilcox, Kaufmann, and Heidegger. I then forged my own interpretation with aid from several of the already established interpretations. I concluded that for Nietzsche knowledge can never achieve any kind of certainty, and in fact it cannot exceed interpretation, but in accordance with the will to power man should embrace his position in the world and assert his, hopefully well-founded, interpretation as humanly true.

Future Plans: I plan to attend law school in 2010.

Profiles



PHAELON O'DONNELL Theatre Dance

Wiscasset, ME Lincoln Academy

Stanislavski & Laban Two Techniques for Dramatic Character Development: Psychological & Physical Awareness

Advisor: Sandra Hardy

Thesis description: My thesis focused on two approaches to character development for a dramatic role. One approach was psychological (Stanisalvski) and the other was physical (Laban). I wanted to know if applying both methods to one character was possible. In order to find this out, I did a creative project where I could work on developing my own character. I worked on the play *This Property is Condemned* by Tennessee Williams.

Future Plans: I'm going to Smith College this following fall to start an M.F.A. program in dance.



KATELYN CIARA PENNA
Biology
Spanish

Windham, ME Windham High School

The Unfortunate Incidence of Tooth Decay in Children: Defining the Problem, Examining Existing Programs, and a Proposal for the Future of Preventative Oral Health Care Methods

Advisor: Lynn Atkins

Thesis description: I studied the increasing rates of tooth decay in children in the United States. This included researching the causes of tooth decay as well as studying the physical and emotional impacts that severe tooth decay may have on a child. I researched what is currently being done on both a state and national level to decrease the incidence of tooth decay in children. Finally, I provided suggestions for improving preventative oral health care with the ultimate goal being to eliminate tooth decay in all children.

Future Plans: I will attend Northeastern University to pursue a master's degree in communication sciences and disorders.



COURTNEY LYNN PHILLIPS Communication Sciences & Disorders Child Development & Family Relations

Gardiner, ME Gardiner Area High School

Empathy and Autism:
Testing the Extreme Male Brain Theory

Advisor: Nancy Hall

Thesis description: The Extreme Male Brain theory states that individuals with autism may have an exaggerated version of the male brain, indicating strong systematizing skills but very weak empathy ability. Past gender studies show that females tend to be stronger empathizers, while males have strengths in systematizing. I studied empathizing and systematizing ability in individuals with Asperger's Syndrome or high-functioning autism, compared to gender-matched controls. Results support a difference in abilities between genders and a weakness in empathy among children with autism, which may explain the social dysfunction that individuals with autism experience.

Future Plans: I will attend UMaine to pursue my master's degree in communication sciences and disorders.



CASEY POLA International Affairs (Political Science) Anthropology, Spanish

Topsham, ME Mt. Ararat High School

Indigenous Politics in the Andes: A Comparative Study of Ethnopolitics in Ecuador & Peru

Advisor: Paul Holman

Thesis description: I studied the impact of indigenous ethnicity on political representation and social equality in the Andean countries of Ecuador and Peru. Having spent time in both places, my own observations led me to hypothesize that indigenous identity impairs political representation and social justice and leads to discrimination based on ethnicity. I examined the history of each country's indigenous groups, their movements and parties, the political representation and social injustices they faced, and their current relations with the state. I analyze connections between ethnic identity and political representation in the Andes and compare the conditions between the two countries.

Future Plans: I will be a Resident Leadership Development Consultant for Pi Beta Phi, Fraternity for Women.



GENEVIEVE J. POPPE International Affairs (Anthropology) French

Loudon, NH Concord High School

You Are What You Eat;
Identity in the French Outdoor Food Market

Advisor: Constanza Ocampo-Raeder

Thesis description: After studying abroad in Angers, France for a year I developed a love for the outdoor food markets. I decided to bring this cultural tradition into my thesis work. My thesis addresses the cultural value of the market and its fate in a global world. Many French people believe that the market tradition is dying out and fear for its loss. On the contrary, my thesis argues that the links between the market and French identity are too strong to allow this to happen. They continue to survive despite changes to their original structure and diminishing use.

Future Plans: I plan to continue studying languages in Europe.



AIMEE RHIANNA POULIN Women's Studies Music

Auburn, ME Edward Little High School

Support and Stigma: Welfare Moms in Maine

Advisor: Stephen Marks

Thesis description: I wanted to look at the conditions that make women on welfare feel affirmed and supported versus shamed and stigmatized. I was particularly interested in the way that one's acceptance or rejection of welfare stereotypes affected her experience. After a review of published literature on the subject, I conducted five interviews incorporating feminist research principles. I got a lot of great responses, some which confirmed the literature and some which contradicted it. I uncovered a few interesting things, including humor as a strategy for managing stigma, and the usefulness of collaborating with participants when conducting research.

Future Plans: I will be attending Simmons College for my master's in social work.



EVELYN C. POWERS Biology

Rowley, MA Triton Regional High School

The Effect of Melatonin on the Cardiac Rhythm of Drosophila melanogaster

Advisor: Harold Dowse

Thesis description: Research shows that serotonin is the primary accelerator of the *Drosophila* heart. In mammals, the biological clock is regulated by the pairing of serotonin and melatonin, so it was hypothesized that melatonin would have an opposing effect on the *Drosophila* heart and slow it down. While there was no observed deceleration of heart rate after injection of melatonin, the regularity, or rhythmicity, was significantly improved. This poses the question of how this effect is achieved and whether these results may be applicable to our own cardiac function.

Future Plans: After earning my master's in physician assistant studies from Massachusetts College of Pharmacy & Health Sciences, I hope to open a bakery to exploit my training and endorse the therapeutic nature of cupcakes.



CAROLYN MICHELLE ROY Communication Sciences & Disorders Child Development & Family Relations

Waterville, ME Waterville Senior High School

Teaching Self-Directed Strategies to Increase Client Success in Behavior Change: Several Case Study Examples Advisor: Gary L. Schilmoeller

Thesis description: I researched Applied Behavior Analysis (ABA) strategies for effecting behavior change in order to facilitate generalization and maintenance of behavior over time. I completed two personal case studies of separate behaviors to assess whether what I learned from a guided behavior change plan generalized to a plan that has minimum feedback from a facilitator. This comparison showed whether an individual, with decreasing amounts of professional assistance, can take control of his/her own behavior after learning the basic components of the model. Implications and limitations of using these strategies in the field of speech-language pathology are discussed.

Future Plans: I plan to attend Boston University to obtain a Master of Science in speech-language pathology.



LINSEY ALAINE RUHL International Affairs Political Science

Lincoln, ME Mattanawcook Academy

President's Emergency Plan for AIDS Relief

Advisor: James W. Warhola

Thesis description: More than 33 million people were living with HIV in 2007: 30.8 million adults, 15.4 million women, and 2.5 million children. That same year, 2.1 million people died of AIDS. HIV/AIDS is devastating because it targets productive members of society – men and women in childbearing years. Nations have organized conferences, formulated plans and allocated resources to address this pandemic. I analyze one plan, the President's Emergency Plan for AIDS relief, a \$15 billion effort put forth by George W. Bush in 2003, to highlight the restrictions, their detrimental effects, and suggest changes to maximize the effectiveness and efficiency of the fund.

Future Plans: After completing my J.D. at Howard University, I will pursue public interest law, focusing on the reproductive health and rights of women and children.



DANIEL G. SKALL Marine Science Marine Biology, Mathematics

Orono, ME Orono High School

An Energy Budget for North Atlantic Humpback Whales (Megaptera novaeangliae)

Advisor: Huijie Xue

Thesis description: Each year, North Atlantic humpback whales swim approximately 4,600 km along the east coast from their feeding waters in the Gulf of Maine to their breeding waters near the West Indies and back again. To survive, they must accumulate energy reserves by feeding in northern waters for roughly four months in the summer, when mature whales consume an average of 1,000kg of food per day. We created models of how the energy stored is used through metabolism and tissue maintenance, thermoregulation, and movement. We determined quantitative fluctuations in the whales' energy stores throughout the year by subtracting losses from the whales' energy banks.

Future Plans: I will pursue my M.S. degree at UMaine in the School of Biology and Ecology.



THOMAS SAGONA Theater

Camden, ME Camden Hills Regional High School

Improv from the Ground Up:
The Study and Practice of Improvisational Theater
Advisor: Tom Mikotowicz

Thesis description: I founded and directed a student organization dedicated to improvisational theater. We started from nothing, but by the end of the year we put on two successful shows, became an official student organization, conducted auditions, elected officers, drafted our constitution, and laid the necessary groundwork for the group to continue in future years as a leading member of the UMaine community. On my own I researched acting and improv, which I then taught to the group. My goal was to bring the group to a level above and beyond the typical "improv comedy" *Who's-Line* style of cheap and shallow entertainment to a more artistic and meaningful plane.

Future Plans: I plan to travel the world, teach English in Japan, and then pursue a career as a professional actor.



VICTORIA LYNN SMITH Microbiology

Coopers Mills, ME Erskine Academy

Determining the Functional Role of Traf6 in Zebrafish Innate Immunity

Advisor: Carol Kim

Thesis description: I researched whether zfTRAF6 in zebrafish functions in the antibacterial and antiviral responses of the innate immune system as described in the human system. In humans, TRAF6 has been shown to have an important role in innate immunity. It is through the triggering of the immune and inflammatory systems that TRAF6 has been identified as a key molecule in fighting infection. Zebrafish, have been used as an important model to study infectious disease and immunology. In previous studies, the characterization of zfTRAF6 revealed that the full-length gene showed 69% similarity to the human homologue.

Future Plans: I will earn a Ph.D. in Infectious Disease at the University of Notre Dame, and study *Mycobacterium tuberculosis* infection.



IAN D. SPRAGUE

English

German

Kennebunkport, ME Kennebunk High School

Humans, Golems, and God: A Collection of Short Stories
Advisor: Alexander C. Irvine

Thesis description: My thesis is a collection of five short stories in different genres. The goal is to work within genre fiction as a way to learn the tropes of genre fiction and find my voice as a writer. The strangest and most effective stories of the collection are those that played with perspective, "Arbast Goes to the City" and "Reflections of Myself." Both could be science fiction, but veer more closely in tone to magic realism. "There You Are" is an attempt to capture the listlessness that defines much of the college experience. "Steps" is a straightforward horror story, and "Bor and Cera in the City of the Skin Weavers" is fantasy inspired by the high adventure tales of classic characters such as Conan, and Fafhrd and the Gray Mouser.

Future Plans: I plan to work as a line cook until graduate school and would like to keep writing in some capacity.



THOMAS ST. PIERRE English History

Merrill, ME Southern Aroostook Community School

Articulations in Conversation: Coleridge's Quest for a True Philosophy

Advisor: Ben Friedlander

Thesis description: Looking at his earlier poetry, my thesis follows the developments of British philosopher and poet Samuel Taylor Coleridge's thought as he struggles to unify the "I am" and "it is." He gradually moves from a more pantheistic view of the world, in which God acts as the unifier, to an idealistic one with the individual imagination as unifier. Ultimately, by viewing the external world not pantheistically but symbolically, where the "I am" expresses and understands its emotions by dissolving itself with objects, Coleridge is finally able to achieve the true philosophy he was searching for.

Future Plans: I'm taking a year off to pursue goals of personal interest, and then going to graduate school.



MAHALA DYER STEWART

Sociology

Music

Harrington, ME Narraguagus High School

Counterculture, Social Class and Gender:
Disentangling Homeschoolers' Feelings of Difference
Advisor: Stephen Marks

Thesis description: I focused on the experience of UM-aine students who were homeschooled for many of their pre-college years. The study explored participants' feelings of difference and marginalization in relation to their homeschooled identity, social class, gender and counterculture. Eleven participants responded to a short e-mail survey, and five participants were interviewed. Eight of the 11 respondents, and all of the interviewees experienced varying degrees of feelings of difference as a result of their homeschooled experience. A larger study would be needed to give a fuller scope of the experience for UMaine students who were homeschooled in their pre-college years.

Future Plans: I will be attending the University of Massachusetts' M.A./Ph.D. program in sociology.



MAXWELL HUNTER TERRY
New Media

Kennebunkport, ME Kennebunk High School

An Evolutionary Approach to Modeling and Processing the Use-Value of Linked Objects

Advisor: Mike Scott

Thesis description: My thesis documents the design and implementation of a web application for assigning use-value to abstract data. Written entirely in the JavaScript programming language, the software is composed of an information model, interchange representation, type system framework, and graphical user interface.

Future Plans: I'm first tailoring my thesis work to a single vertical market.



JONO THOMAS Biology, Psychology

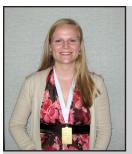
West Newbury, CT Thetford Academy

The Production of Fluorescent Beer Using Transgenic Yeast

Advisor: Harold Dowse

Thesis description: I worked to demonstrate advancement in brewing science by creating a genetically altered strain of yeast to glow green under light. Beer brewed with this yeast should glow from the yeast floating in it. I wanted to show how modern biochemical technologies can be used to improve brewing. I researched and discussed the multiple developments that allowed for such a yeast and beer to be created. I conducted the first half of the experimentation necessary to create this yeast by obtaining transforming DNA from Dr. Brendan Cormack of Johns Hopkins and creating a plasmid capable of transforming bacteria.

Future Plans: I will go to medical school at UVM. I have been accepted into the Air Force Health Professions Scholarship and will enter service following my residency.



BETTINA THEA
IRMGART VOIGT
Psychology
Human Development

New Gloucester, ME Hebron Academy

Examining Patterns and Correlates of Intimacy and Sexual Relationships in College Women

Advisor: Sandra T. Sigmon

Thesis description: In an attempt to fill the research gaps that exist amongst the plethora of literature regarding college students' sexual relationships, intimacy, and activity, this research study's original goal was to differentiate between first, second, third, and fourth year students along the scope of emerging adulthood. While the research yielded some significant results, it also indicated interesting correlates of intimacy. The information collected could be essential in creating optimal environments for emerging adults' self fulfillment in terms of intimacy development and sexual self efficacy.

Future Plans: I will work for a year to prepare for the GRE's and applying to graduate school. I plan to become a Clinical Psychologist and am very excited about that.



KEVIN JOSEPH TRAINOR Civil Engineering

Veazie, ME John Bapst Memorial High School

A Comparison of Sorbents for Removing Arsenic from Drinking Water

Advisor: Jean MacRae

Thesis description: Arsenic contamination in drinking water impacts millions of people globally, many in rural areas of developing countries. Adsorption is an effective arsenic removal method at the household level to provide safe water. I used a laboratory method to quantify the amount of arsenic removed by potentially low-cost adsorbents, including iron coated sand, manganese green sand, and forms of chitosan, a substance made from crustacean shells. Iron coated sand performed the best, but chitosan also showed promise. Chitosan is an appealing substance because it can be produced from agricultural waste.

Future Plans: I will attend UMaine for an M.S. in civil and environmental engineering, get a Professional Engineer's license, and go to law school for environmental law.



BEN WASSERMAN Wildlife Ecology, Mathematics

Wantagh, NY Wantagh Senior High School

Predator Mediated Coevolutionary Responses to Competition in Poecilia reticulata and Rivulus hartii

Advisors: Michael Kinnison & Eric Palkovacs

Thesis description: I studied geographic variation in interspecific interactions: how different species interact differently depending on their ecological context, so you may expect to find a mosaic of different intensities and outcomes in the interaction between the same two species. It has been shown that a predator can reduce the "damage" that competing species have on each other. We found that the evolutionary legacy of this phenomenon in Trinidadian guppies and their competitor *Rivulus* is weaker in areas where guppies and *Rivulus* coexist with predators, so we can predict the shape of the mosaic for these species.

Future Plans: I'll be working as a scientific technician, finishing work on samples from my thesis before assignment by the Peace Corps in 2010. After that, who knows!?!



WILLIAM E. WEST

Zoology

Pre-Medicine

Portland, ME Deering High School

Phylogeography of the Wood Turtle Glyptemys insculpta Advisor: Judith Rhymer

Thesis description: I researched the use of DNA sequences to study the phylogeography of wood turtles in North America, which is useful in conservation planning for rare species. I used a 750bp fragment of the mitochondrial DNA (mtDNA) control region to compare sequences among populations across the wood turtle range. The control region is is useful for population-level studies. I compared my data to additional wood turtle control region sequences deposited in Genbank. This revealed a pattern of genetic variation across the species where there was greater haplotype diversity among mid-western populations compared

Future Plans: I will attend Western Illinois University to study for a master's in biology, including work at the Shedd Aquarium in Chicago and the Niabi Zoo in Moline.

to populations east of the Appalachian Mountains.



JACOB TYLER WILLIAMS
New Media

Bowdoin, ME Mount Ararat High School

Active Media: Observing Meaning and Perspective in a Participant Media Archive

Advisor: Mike Scott

Thesis description: The Active Media project is an exploration concerning students in public education and the ways in which they interpret and create media. My thesis documents my collaboration with a group of high school students who reconstructed a film with the various media pieces that created the film's original version. Various perspectives and meaning can be analyzed from the differences in films created by the students. The Active Media project also builds the base of a dynamic Web-based system to be built that will connect and further facilitate this form of media reconstruction and analysis in public education.

Future Plans: I will work on my personal video portfolio, thejakewilliams.com, research graduate schools, and plan to move West to see life on the other side of the country.



MICHAEL D. WHITBY

Wildlife Ecology

Environmental Management & Policy

Pemberton, NJ Pemberton Township High School

Population Trends and Spatial Relations of American Eiders (Somateria mollissima dressari) and Great Black-Backed Gulls (Larus marinus) on Damariscove Island, Maine, USA

Advisor: Dan Harrison

Thesis description: This study looks at long term population trends of American Eiders and Great Black-backed Gulls on Damariscove Island, Maine. Nesting density from 1996-2008 was calculated in 4 habitat types. Results show that the American Eider population increased from 658 nesting birds in 1996 to 2330 in 2008, despite a stable yet changing gull population. Original surveys of the island indicate an even distribution of Herring and Great Black-backed Gulls, however present surveys almost entirely consist of Great Black-backed Gulls, a more aggressive and predatory species. The nesting eider increase coincides with an increase in shrub coverage on the island.



SARAH NICOLE YOUNG Biochemistry

New Gloucester, ME Gray-New Gloucester High School

Identification of Tropomyosin-1 Binding Partners Advisor: Sharon Ashworth

Thesis description: Tropomyosin-1 (TM1) is an actin binding protein that stabilizes the actin cytoskeleton of the cell. I carried out a series of experiments to purify His-TM1 from *E. coli* and used a protein extract from cultured pig proximal tubule cells to determine what proteins bind to TM1. Binding partners of TM1 were identified using Western blot analysis, including several known tropomyosin binding proteins and some novel proteins that have never been seen to interact with this specific isoform. By identifying what binds to TM1 we hope to determine if these proteins play a role in actin dynamics of kidney cells during acute renal failure and their effects in tumor cells.

Future Plans: I plan to attend UMaine for graduate school with the department of biochemistry, microbiology, and molecular biology. I plan to live and work in Maine.

Honors Celebration 2009

Recognizing our Students and their Families



Class of 2010 Preview... check it out!

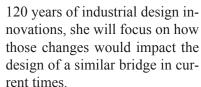
Need some inspiration? Our thesis library now showcases the bound work of over 1,100 hard-working Honors students, starting with four theses from 1937. The Class of 2010 is positioned to add more blue to our bookshelves—in a big way. The fall roster for Honors 498 is just shy of 100 thesis-writers! Here's a sneak peek at the exciting work in progress all over campus...

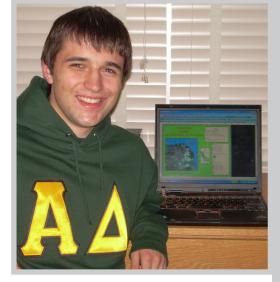


Aislinn Sarnacki (Communication) [pictured left] already knows firsthand that an Honors Thesis proposal can undergo many dramatic changes between conception and completion. Though her initial plan was to study nature writing while hiking in Maine for one season, she will now complete her own literary work of non-fiction based on the entire journey. Her thesis, Finding Elevation in the Maine Wilderness, will "highlight the benefits of independent travel as a woman and reflect on the healing powers of wild strawberries, granite outcroppings, country stores and low tides."

Health-conscious prospective students may be interested in the findings of Will Hamilton's [pictured right] thesis, Environmental Health Audit of the University of Maine Campus Using a GIS. Hamilton (Food Science & Human Nutrition) will "explore the level of support for healthful lifestyles" on campus and in the area. He will map findings from a recent UMaine study, featuring "assessments of selected buildings, recreational facilities, walkways, eating facilities, and grocery stores."

Are you afraid of heights? If you've never braved the landmark bridge between two boroughs in New York City, Deborah Williams (Civil Engineering) takes you there in her thesis, Changes in Structural Design: A Look at the Brooklyn Bridge, Then and Now. As she studies more than







The Honors staff can't wait to celebrate the completion of these and other undergradaute research projects that are currently underway. Class of 2010 theses will also include Place Psychology: A History and Analysis of Interior Design by Samantha Brown (Psychology), Alienation by Sara Biron (Art) [pictured bottom left], Current Trends in Land Conservation Efforts in the State of Maine by Dylan King (Ecology & Environmental Science), Growth of Aortic Endothelial Cells under Micro-Gravity Conditions by Amy Foley (Biochemistry), The Effect of College Education on Earnings in Maine by Jonathan Erde (Economics), Homosociality and Homosexuality in Victorian Literature by Jane Hunt (English), and When Personal Interests Prevailed: Maine Land *Speculation* by Cory Davis (History).

MINERVA 2010 will highlight these incredible theses and many, many more... stay tuned!

75 YEARS



Mark your calendar!

June 24-26, 2010

Please plan to join us on campus in Orono for this 3-day celebration of our 75th Birthday. Meet up with other Honors graduates, current and former Honors faculty and staff, and - of course - meet some of our amazing students!

Planned highlights include...

A gala dinner

Presentations of student research

Tours of Colvin Hall

Keynote addresses

Discussion with past Directors & Faculty

Honors College road race

Honors College community service

Lobster Bake

If you would like to be a part of planning the 75th, please contact Emily Cain '02 at emily.cain@umit. maine.edu or 207.581.3308.

What's up with you?

We would like to gather "Class Notes" and other updates from our Honors graduates in conjuction with the 75th Celebration. If you care to share what you have been up to, please visit http://www.honors.umaine.edu/grads-friends/ and click on the "Honors Notes and News" link.

75 Years of...

We've come a long way in the past 75 years, building upon the history of our strong academic tradition, and enhancing that experience to benefit students.

... students

75 years ago, our students were some of the most academically motivated at UMaine. Today, that is still 100% true, but now they represent a broader range of academic programs and interdisciplinary interests. Only a handful of students participated in Honors in the beginning, but today the Honors College community is made up of nearly 800 students from nearly all academic programs.

... faculty

75 years ago, the Honors faculty consisted of a small group of professors, primarily from the liberal arts. Today, our faculty is as diverse as our student body — coming from across all of UMaine's colleges — and we have two Honors College faculty positions in place.

... leadership

75 years ago, Stanley Ashby was the founding coordinator of Honors at UMaine. His work in Honors was part-time, as it was for Ronald Levinson and Kenneth Miles, who followed him in the 1940s and 1950s. Robert B. Thomson was the first Director of the Honors Program (62-76), followed by Sam Schuman (77-81), Ulrich Wicks (81-87), Bill Baker (87-88), William Whipple (88-90), Ruth Nadelhaft (90-95, 96-97), and Tina Passman (95-96). In 1997, Charlie Slavin became the Director of the Honors Program, and in 2004 he became the first Dean of Honors.

... graduates

The first graduating Honors class in 1937 was made up of three men and one woman. Their majors were economics, zoology, philosophy and history. With the class of 2010, the total number of Honors graduates will exceed 1200 students, all of whom have written and defended theses, with more than 90 graduates in the class of 2010 alone. Our graduates now include more women than men, and their majors and minors represent the full spectrum that UMaine has to offer.

... scholarship

75 years ago, scholarship in Honors was defined by classes of breadth and depth and the Honors thesis. Today, that is still true, but we now enhance and enrich those experiences with thesis fellowships, study away support, travel opportunities, the Center for Undergraduate Research, exposure to cultural and current events, and honors housing.

2009 Honors College Graduate

Please tell us a little about yourself. I have a reputation for being a pretty outdoorsy, nature-y, hippyish character, and it's all pretty true. I love outdoor recreation: hiking, paddling, rock climbing, snowshoeing and cross country skiing, and I'm hoping to try downhill this winter. I'm an ecologist by training and so I enjoy being outside, just knowing my surroundings, and that fuels my intense drive to conserve and protect.

What brought you to UMaine and made you choose Honors? I was brought to UMaine by the Wildlife Ecology program, hands down. I was looking for programs in environmental something-or-other, and what I found was that you got an introduction to everything, but never seemed to build to a sizeable, usable skill set. One day I stumbled across the wildlife biology program, decided that it had what the others were missing, and when I found UMaine, it was the obvious choice. As far as Honors, once I was looking at UMaine, it made sense for me to "spend" my gen-ed credits in an organized sequence, rather than picking classes from a bunch of lists, and the thought of doing a research project at the end excited me.

What is your thesis topic, and how did you come to choose it? The title is Predator-mediated coevolutionary responses to competition in Poecilia re-



Above: Ben with students he taught in the Udall Program. Left: jumping gaubine. Bottom: guppies.

ticulata and Rivulus hartii. I studied how the competition for food between two species of small Trinidadian stream fish: guppies (*Poecilia reticulata*) and the jumping guabine (*Rivulus hartii*) is different where they are hunted by large predatory fish versus where there aren't any predators. Our work was based on a recent innovation in evolutionary biology called the Geographic Mosaic model of coevolution. I worked in Dr. Mike Kinnison's lab (Biology & Ecology) since my first year, and I was really interested in contemporary evolution; that is evolution occurring on observable timescales, and how important this could be for conservation biology. I worked on studies of adaptive divergence, populations of the same species evolving very different traits in different locations. I came into his office one day with a somewhat half-baked idea: What about adaptive co-divergence, does anybody study that? As soon as I asked the question, I was on my way to Trinidad, because this related to



what Dr. Eric Palkovacs (a post-doc researcher in the lab) was heading up with collaborators from around North America.

Why a double-major in Mathematics and Wildlife Ecology? Any scientist can stand to understand more math. Math is the language with which scientists describe the natural world. I lucked out in that I also really enjoy it, but two experiences my

sophomore year solidified it for me. First was meeting Dr. David Hiebeler, a mathematical ecologist, who was my favorite UMaine math teacher. Second was a workshop put on by the National Marine Fisheries Service (NMFS) that recruited undergraduates in population dynamics and stock assessment biology. These events proved to me that mathematicians cared about what I was doing, and future employers would like me to have math skills.

What impact has receiving a Morris K. Udall Scholarship in 2007 had on your UMaine experience? The Udall Foundation is an amazing network to belong to. Every summer it brings together a group of students that is so awe inspiring it's mind boggling. I think the direct import of the Udall Award on my UMaine experience is that I became more involved in a wider array of environmental movements on campus, especially those surrounding Climate Change and Energy Efficiency.

Why was Honors important to you? Honors pushed me to think in ways that other classes didn't, and, as a math-science double major, I didn't have time for non-technical classes that weren't required. Honors was a welcome humanities break in my week. Writing a thesis was an incredibly rewarding process, that will give me a one-up on the competition for grad school.

What are your post-graduation plans? I'll be working as a scientific technician at UMaine and Duke University's Marine Laboratory, finishing lab work on samples from Trinidad and working on several other projects in fish evolutionary ecology. I've been nominated to join the Peace Corps in May 2010 and am anxiously awaiting details more than "You will be doing Protected Areas Management in the Pacific Region." After that, who knows!?!

What advice can you give future Honors students? Get involved. There are so many opportunities for you in college, but very few are required. It's up to you to find out where you can learn the most, enjoy the most, and make the most difference.



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Honors students are traveling the globe as part of their studies at UMaine. Learn more about their adventures in this edition of MINERVA 2009!