



THE SPOUTER

May 2011-- Volume 4, Issue 2

UNIVERSITY OF MASSACHUSETTS DARTMOUTH

Message from the Honors Director

Professor Robert Darst

Spring 2011 has been yet another exciting semester for the Honors Program! Here are some highlights:

2011 Commonwealth Scholars.

We are delighted to announce that 26 students will graduate as Commonwealth Scholars this spring. By the end of the semester, these students will have completed all of the requirements of the Commonwealth Honors Program, including completion of a significant independent thesis or project. The Commonwealth Scholars were recognized at Honors Convocation on May 4, and they will wear their gold stoles at Commencement. Congratulations to all of you!

Expansion of Honors Housing. Beginning this fall, sophomores, juniors, and seniors in the Honors Program will have the option of Honors housing in Hickory Hall, the most desirable dorm on campus. The residences in Hickory Hall are apartments, complete with kitchens, living rooms, dining areas, and single bedrooms. Honors housing in Hickory will begin on the top two floors, then expand downward each year until the entire dorm is fully "Honors." First-year Honors Housing will remain in Maple Ridge.

2011 Honors Service Awards.

Each year, we present awards to two individuals—one student and one faculty or staff member—for contributions "above and beyond the call of duty" to the Honors Program.

This year's student honoree is Matt Litchfield. Matt served on the University Honors Committee from Fall 2008 to Spring 2011, and as our very

first Student Director from January 2010 to March 2011. Matt's leadership and creativity were invaluable to the reorganization and revitalization of the Honors Program over the past three years. We look forward to cheering him on as he graduates as a Commonwealth Scholar in English and Philosophy. Thanks, Matt—we couldn't have done it without you!

This year's faculty/staff honoree is Lucinda Poudrier-Aaronson, the Director of Housing and Residential Life. One of the program's most important accomplishments over the past two years was the expansion and improvement of Honors Housing. This would not have been possible without Lucinda's leadership, creativity, and tenacity. This past fall, Lucinda organized the relocation of first-year Honors Housing to Maple Ridge Hall; this move has, by all accounts, been a great success. This spring, Lucinda organized the creation of "sophomore and up" Honors Housing in Hickory Hall. From now on, our Honors students will have the option of living continuously in Honors Housing from their arrival until their graduation as Commonwealth Scholars. Thank you, Lucinda!

As always, many thanks to everyone—students, faculty, staff, and administrators—who made this another successful semester for the Honors Program. I look forward to seeing you all in the fall!

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We welcome articles from students and faculty.

Feature: Honors Housing Established in Upperclassmen Apartments

by Elise DePlanche, Student Director of the Honors Program



Hickory Residence Hall

The Honors Program and the Office of Housing and Residential Life were pleased to announce this March that upperclassmen Honors Housing would become a reality next fall in Hickory Hall.

Although freshman Honors Housing has existed for several years, this will be the first year that sophomores, juniors, and seniors will be allowed to live together in specially designated Honors Housing.

This will also be the first year that sophomores-to-be will be able to choose apartment housing like rising juniors and seniors.

"In the past, we haven't allowed sophomores to choose apartments, so that has changed in one hall in order to retain Honors Students," said Lucinda Poudrier-Aaronson, the Director of Housing and Residential Life.

Hickory was chosen due to its proximity to the academic quad and its desirability among upperclassmen. The building is scheduled to be repainted this summer, and will be outfitted with new beds.

Honors students are delighted about the availability of upperclass Honors Housing. "Oh

my God! I'm so excited about the dishwasher!" freshman honors student Audrey Mazzola exclaimed. "Whenever someone asks me about Honors Housing, I'm like 'I'm going to have a dishwasher next year!'"

Honors biology major Kayla Nutt said that she was looking forward to the academic environment that Honors Housing would bring. "I'll be in a place with other honors students, so there's more than a certain probability that there won't be drunk people yelling and screaming next door while I'm trying to do my homework or sleep," she said, citing an incident that occurred last Saturday at her Oak Glen residence.

Even many non-honors students agree that the establishment of upperclass Honors Housing is for the best. "I think it's a great idea," said Tracey Faria, a non-honors, senior psychology major. "Housing isn't very conducive to studying, so it's great for kids who are committed to their schoolwork."

Sophomore Katelyn Eldeb agreed. "Keep all the honors [students] together so they don't have all these parties around them," said the non-honors psychology major.

"There's so many apartment buildings, why not give one to the students who are doing well here?"

Honors Program Director Robert Darst explained that the purpose of the new Honors Housing was to not only create an academic living environment, but also to forge community among honors students across years and majors. "It's very common around the country for Honors Programs to have an integrated residential component," he said. "It was the Provost's idea to move forward with Honors Housing and I thought it was a great idea."

Poudrier-Aaronson, the Director of Housing and Residential Life, has gained widespread recognition within the Honors Program for her diligent and cooperative efforts to create a suitable living environment for honors students.

Darst noted that she will receive this year's Honors Faculty Service Award "for her indispensable assistance in making post-freshman Honors housing a reality, and for improving the quality of first-year Honors housing. The award was given at Honors Convocation on May 4, 2011.

Feature: Cassie Walsh's Study Finds Environmental Action Makes Employees Happy

by *Elise DePlanche, Student Director of the Honors Program*



Cassie Walsh

Last May, Cassie Walsh was a relatively unknown Human Resources major graduating with the rest of her class. But now, thanks to her Honors Thesis, Walsh's name is in *Inc. Magazine*, *Science Daily*, and the *Times of India*. "The reaction in the popular business news media has been overwhelming," said Professor Adam Sulkowski, Walsh's thesis advisor and second author of the research paper. "Our work and findings were described in more than 10 news sources," as well as the *Interdisciplinary Environmental Review*.

Walsh and Sulkowski's study examined the relationship between perceived environmental performance and employee satisfaction. They worked to answer a question that no one had answered squarely before: does having a reputation for being "green" make a business's employees happier about working there? The duo examined data from 113 companies and thousands of employees, and arrived at the conclusion that a strong positive correlation existed. "Com-

panies with a greener reputation are much more likely to have satisfied employees...[and the] strength of that relationship is remarkable," Sulkowski said in a University press release.

For comparison, Walsh and Sulkowski also looked at the relationship between a company's financial success and employee job satisfaction. One might think that employees would enjoy seeing the business they work for do well, but data analysis contradicted this belief. "There was no relationship found between financial performance and employee satisfaction," Sulkowski noted, "which makes sense when one considers that a company's financial performance may improve when it streamlines and lays off people." This finding has many practical implications for business owners, whom Walsh said are always on the lookout for cost effective ways to improve employee satisfaction. "The real world implication is that communicating what a company is doing vis à vis its environmental impacts should be seen as relevant to its human resources management," said Sulkowski. "This includes efforts to recruit, retain, and motivate employees."

Despite her success, Walsh admitted that it took a change in perspective to even begin her thesis. "When I came into the Honors Program, a thesis wasn't required," Walsh recalled. "I came in with the mentality that I wasn't doing it...In the beginning, it was this big, daunting thing, but once I broke it down, it wasn't that bad." Once Walsh had made up her mind to go through with a thesis project, she worked diligently to get it done. She and Sulkowski kept a rigorous schedule of weekly or bi-weekly meetings to discuss the progress of the paper, and also communi-

cated through email. "I didn't sleep that first semester after I began the project," Walsh laughed. "There was a lot of coffee involved." Although Walsh made steady and rapid advancements in her project compared to other students, she had difficulty fitting the thesis into her already busy schedule. "When I was writing the paper, I had an over-loaded class schedule that I had to get approved, a job, and I decided to join the equestrian team for some reason," she said.

Sulkowski, on the other hand, declared that being a thesis advisor was not stressful or difficult in the least. "It's exciting and inspiring," he said. "I guess it may not always go this smoothly, nor may it always result in a 'home run' of a significant, interesting, and useful new piece of information, but on this occasion the collaboration went smoothly and we had a good time." Walsh also reported having a good work relationship with Sulkowski, and considered their conflict-free partnership a key element in the project's success. "A lot depends on choosing the right advisor," she told a group of honors students in a thesis preparation class this month. Reflecting upon the lack of obstacles to the project's completion, Sulkowski said that maybe it was "because we planned our work well and had a clear vision of the end goal."

Walsh now works at EMC Corporation in Hopkinton, Massachusetts as a human resources coordinator, and looks back on her years and thesis work at UMass Dartmouth with satisfaction. "I couldn't be more proud of the research Professor Sulkowski and I have completed and published. It...developed into something much more than I could have imagined. It was a lot of hard work, but the payoff has definitely been worth it."

Spotlight: Jeffrey Brown's Sci-Fi Novel Honors Project

Jeffrey A Brown, Psychology.

Honors Project Title: *Love Beyond Life: a romantic journey through transcendental consciousness.*

Supervisor: Professor Robert Waxler, English.

Committee Member: Professor Maureen Eckert, Philosophy.

Would you rather read a book of new theories on consciousness titled "Quantum Resonance and the Morphology of Transcendental Experience" or a novel that presents that same information through a seductive 2012 story of sci-fi, romance, imagination and infinite possibility? Assuming you'd prefer the later, my thesis is a novel of revolutionary ideas portrayed through the life of a college freshman as he explores his new world with an unusual gift to alter reality. He does more than just study Quantum PsychoPhysics; he *lives* it. Every person he meets has a different lesson to teach him as he discovers love, enlightenment, mastery of circumstances and what it truly means to be human. Partake in the adventure; jump-shift with us from one matrix to the next.



Love Beyond Life: Selection from Chapter 12 - "The Quest Continues"

I've got to blow off some steam; that conversation has me heated.

I throw on my hoodie, gather my wallet, keys and iPod, leaving my cell phone behind. I won't need it for this short walk, and quite frankly, I'd rather limit my technological availability to the angels for the next few hours. At a time like this, the only messages I want are those of divine origin. Hence, my iPod =)

Exiting the dormroom, I take a left, go downstairs, pass a raging open-door party with loud music, beer cans covering the floor and girls dressed for summer. Pressing through a heavy backdoor, I walk outside and stand beneath trees. I look up, spread my arms and take a deep breath.

"Ah!" Nature. Night Nature. Love it.

Taking the iPod out of the pocket of my hoodie, I unwrap the headphones, tuck 'em into my earholes and press play. Naturally, it starts with Angels & Airwaves, on a track called "Epic Holiday" off the new LOVE album that Tom made for me the other night while film-scoring my dream in forest.

I listen closely to the song, knowing that it came on first for a reason. The magic of my iPod is that it knows exactly what I need to hear.

*No body's right, No body's wrong,
Life's just a game,
It's just one epic holiday.
(Epic Holiday)*

There is nothing I love better than walking around campus at night with my tunes. Perfect solitude. The dimness, the rhythmic glow of street light, the lack of people, the abundance of open space... a man can really get some thinking done.

Passing the amphitheater, I approach a large rock under a few pine trees, right off the stone pathway. There is an old story about this rock, about a student, Alexandra Seashells, who discovered invisibility here. Legend has it, she just came to this rock and sat down on top of it, turning her attention inward for a few hours. Many students walked passed her, but few were aware of her presence.

When she stood up to walk away, she stepped down with her left foot, then her right foot, and as she took another step with her left, she just vanished. They say it was deliberate, that here at the rock she discovered this ability. Here, she gained this gift.

And rumor has it that even today she appears and disappears all over this campus. She has a ghost-like presence, some would say. But, what changed inside her to make this possible?

Interested in befriending this sacred resonance, and curious if I too am worthy of learning the secret, I hoist myself onto the rock, cross my legs, drop my spine into the crevice and concentrate my

focus inward. Staying open to any kind of guidance, I leave my iPod running.

*Unpredictable, life's a miracle.
(Some Origins of Fire)*

I focus on the space behind my eyes, gazing into the darkness of my eyelids. My breath slows. An energetic force, a morphic resonance, overcomes my body. I give into the Flow.

My fingers find a natural mudra. This must be the morphic template. Templates are like patterns, and the quantum field consists of patterns. Most likely, the number of these patterns is infinite.

When all else fails, sit down, be quiet and let the Flow take you over. Stop stirring the mind; take the spoon out of the pot. Of all possible ways to learn something, this is of highest fidelity. Once you reinforce the innate, human ability of learning from within, you further empower yourself to depend only on your database of quantum consciousness and the Flow as a source of knowledge.

Quantum consciousness is a dynamic pattern of psychic resonances, displayed as various degrees of awareness. The more one focuses inward, the more one's awareness heightens and naturally these psychological tendencies self-purify.

I let the energy and gravity of this sacred resonance take me over. It is so calming, yet so energizing; so filling, yet so empty... I enter bliss.

I become aware now of a light behind my eyelids. No longer is there darkness. It is like I have a night sky within me at the forefront of my brain. The more I gaze into the darkness, the more I realize that there really is no darkness at all.

This light within is like a full moon. So beautiful, so big, so radiant, like an ascending harvest circle on its first few hours.

The light engulfs me. Like the waters before a great wave, the music on my iPod slows and recedes, only to quicken and explode with an intense emotion that can only be described as cobalt blue with a hint of violet.

I transcend sheaths of consciousness, traveling mentally, if not psychically, departing the ordinary Earth plane like a rocket into space.

Blues and golden yellows flash my experience of all that is. I feel myself drifting away, like my mind is slipping out of my body through the top of my head until, finally, I feel no connection to my physical body at all. I am just pure energy, pure ether, pure light.

Tom DeLonge appears to me. "We're going to Thepura, my favorite planet. Come, you have much to learn. Relax yourself as your astral body acclimates to these conditions."

Earth has too many Laurens. Not enough stars. Next stop, Thepura? No objection here.

Spotlight: Honors Students Study Zebra Finches

"Dominance Hierarchy Formation in a Model Organism, the Zebra Finch (*Taeniopygia guttata*)"

by Felecia Clodius, Rachael Bonoan, Annie Dawson, Sara Caetano, Elsa Yeung and Dr. Guillermo Paz-y-Miño C., Department of Biology



This study is being conducted in the lab of Dr. Guillermo Paz-y-Miño with the help of his graduate student and four undergraduate honors students.

Abstract

This study was done to examine the formation of dominance hierarchies in the social zebra finch (*Taeniopygia guttata*). Observing a hierarchy is important because it allows the study of social interactions, such as familiarity, and the cognitive mechanisms involved in such interactions. To establish this hierarchy in the lab, pairs of birds were placed in a box built for the experiment where they had to compete for food. Their interaction was recorded and the video was scored for dominant/subordinate behaviors. The bird with the highest number of dominant behaviors "won" the match and the bird with the lowest number of dominant behaviors "lost" the match. This was done three times for each pair of birds. The data was used to create a matrix of each bird's wins and losses. A final matrix was reorganized from most dominant to least dominant and a hierarchy of six birds was successfully established. This shows that zebra finches are capable of hierarchy formation in the lab. Being a model organism, zebra finches will allow us to further explore the applications of these skills in cognitive biology, neurobiology and genetics.

Methods

Six zebra finches were trained one at a time to feed from feeders set up in a testing box as shown in Figure 1 below. During training, feeders were either both filled or only one was filled (alternating between trials). After training, birds were let into the testing box, two at a time, and allowed to compete for food available in only one feeder. Each trial was recorded. All possible pairs were tested this way and the number of dominant and subordinate behaviors was recorded. The behaviors scored for are shown in Table 1 below. In order to test the validity of the generated matrix, the videos of the trials were rewatched and the percent time each bird spent in the three sections of the box was calculated.

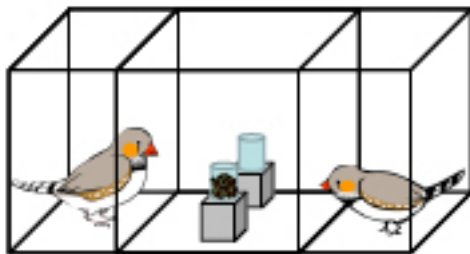


Figure 1. Testing Box

Scored Behaviors	
Dominant	Subordinate
Head up	Crouch
Stare	Look away
Look at	Lower eyes/bill
Push	Supplanted/Move Away
Supplant	
Peck	

Table 1. Behaviors Scores for Determining Hierarchy

Results

Dominance hierarchies were formed by comparing the number of dominant and subordinate behaviors displayed by each pair of birds during three separate trials. The bird displaying the most dominant behaviors in each encounter was considered to be the dominant bird in that pair. The results of each encounter were recorded into a matrix and the matrix was rearranged to show the birds in order, from most dominant to least dominant (Figure 2). The data displayed below is for male birds, we are currently doing the same with a group of female birds.

		Number of Encounters When Bird is Subordinate					
		ESA2051	ESB3031	ESB3011	EGA2011	ESA1061	ESA1051
Number of Encounters When Bird is Dominant	ESA2051		3	3	3	2	2
	ESB3031	0		2	2	3	3
	ESB3011	0	1		2	2	2
	EGA2011	1	0	1		1	2
	ESA1061	0	1	1	2		3
	ESA1051	1	0	1	0	1	

Figure 2. Dominance Matrix for Males

Discussion

Dominance hierarchies generated in the laboratory may be applied as a basis for advanced studies in animal behavior and cognition. In addition, zebra finches are a model organism and, as such, may be used to further explore the neurobiology and genetics of dominant and subordinate interactions seen within groups of social animals.

2011 Commonwealth Honors Scholars Thesis Project Showcase



Mia Bernado, Illustration.

Honors Project Title: Mural Illustration: New Bedford.

Supervisor: Professor James Edwards, Illustration.

Committee Member: Heather Bentz, Assistant Dean CVPA.

This untitled mural, designed for a wall in Wing Court in New Bedford, is based on the research of two basic components; the rich whaling history of New Bedford and artistic movements German Expressionism, Fauvism and Muralism. Using German Expressionism as a visual language allows for flexibility in compositional systems, helping move the design beyond a straight narrative while maintaining the freshness of the artist's hand. With color derived from the Fauves and using Muralism as a frame of reference, this mural is designed to celebrate maritime history and be enjoyed during the many outdoor events held in Wing Court.



Shana Lee Silva, Spanish.

Honors Project Title: Two Way Immersion vs. SEI Immersion; Comparison and Contrast and Teachers' Views and Attitudes.

Supervisor: Professor Christina Biron, Spanish.

Committee Members: Professor Lulu Sun, English, and

Darcy Fernandes, Principal of Roosevelt Middle School in New Bedford, MA.

My project compares and contrasts the Two Way Immersion system versus the SEI Immersion system. Both of these programs exist within the controversial realm of bilingual education. This thesis focuses on these two programs generally, and then compares the two specific programs on the basis of my investigative research at the Rafael Hernandez School in Roxbury, MA and Roosevelt Middle School in New Bedford, MA. Rafael Hernandez School, serving the kindergarten through eighth grade, is a two way immersion school, while Roosevelt Middle school, serving sixth through eighth grade, has a SEI program within the school for recent arrival immigrants. Lastly, the thesis focuses on some teachers' views, attitudes, and concerns regarding both of these immersion programs.



Mayara Grizotte, Biology.

Honors Project Title: Characterizing Vibrio harveyi Infection and Immune Response in Summer Flounder (Paralichthys dentatus).

Supervisor: Professor Erin Bromage, Biology.

Committee Members: Professor Tracie Ferreira, Biology, and Professor Robert Drew, Biology.

Summer flounder, *Paralichthys dentatus*, commonly called fluke, is a member of the Bothidae family of flatfish, or left-eyed flounder, and has been a very important fishery in the northeast United States. However, the species number has decreased considerably causing the fishery to collapse. The goal of this research project is to examine the cause of mortality in juvenile summer flounder, as well as to understand the relationship between *Paralichthys dentatus* and *Vibrio harveyi*, an ever-present gram-negative bacterium. To achieve the project goal, a monoclonal antibody against summer flounder IgM was developed. The IgM molecule was isolated by size fractionation from plasma and mice were immunized with the IgM molecule for monoclonal antibody production. After antibodies were tested by ELISA, hybridoma fusions were performed on the mouse that exhibited the best response. Hybridoma fusion involved fusing plasma cells from the mouse with a myeloma cell line, which resulted in hybridoma cells that had the ability to secrete antibodies. The antibody product from these cells is now being used to examine the role of B cells in the protection and or susceptibility of juvenile flounder to exposure to the *Vibrio harveyi*.

2011 Commonwealth Honors Scholars Thesis Project Showcase



Alyssa Breanne Garland-Fry, Photography.

Honors Project Title: Compendium.

Supervisor: Professor Thomas Spencer Ladd, Design.
Committee Member: Professor Sarah Malakoff, Design.

What started off as a simple love for well used, skillfully crafted, books ended up becoming an exploration of the forms and textures found in, and made by, books and papers. I studied the texture of the paper and imprints left from the text, to the repetitive forms, subtle changes in hue, organization and sometimes chaos created by stacks of often handled objects. By keeping the focus very sharp and selective, colors and forms of the objects become abstract patterns and textures.

Alexandra King Textile Design.

Honors Project Title: Concerns with Today's Food Sources.

Supervisor: Professor Deborah Carlson, Textile Design.

Committee Member: Professor Charlotte Hamlin, Textile Design.

People today are disconnected from the food that they eat. A hundred years ago, people knew more about their food: they picked out produce from farm stands, had a local butcher to chat with about that day's meat and had their own backyard or communal gardens. Today, with the increase in technology and population, many people are far removed from the food they eat. We now have access to bananas from Columbia, bluefin tuna from Japan and cocoa from Ghana. Access to products worldwide promotes a global economy, but in terms of ecological soundness, the sourcing method is flawed. One main problem stemming from this is the lack of knowledge of the use of pesticides on conventionally grown food. By focusing on four different kinds of plants: carrots, Swiss chard, peanuts and cotton, I am raising awareness about the toxins on these plants and prompting the viewer to ask questions that enable them to be more connected with their food.



For a complete list of all the 2011 Commonwealth Honors Scholars Thesis Project Descriptions, please see the Honors Convocation Program, available on the Honors Program website at:

<http://www.umassd.edu/honors/events/honorsconvocation/>

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