EvoS Illuminate

Newsletter of the EvoS Consortium

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EvoS
The Evolutionary Studies Consortium

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New Paltz – A Beacon of Intellectual Freedom and of Evolutionary Studies

(This article first appeared as a letter to the editor in the New Paltz Times on 5/9/2014)

Dear Editor,

I write to give a status report on the Evolutionary Studies (EvoS) program that we've got at SUNY New Paltz – and to give a message of thanks to our broader community for allowing our work in the field of Evolutionary Studies to find such a supportive home in this special place.

In 2007, SUNY New Paltz started the world's second academic program in the field of evolutionary studies – this program began with a group of faculty from such diverse areas as anthropology, biology, geology,

psychology, and theatre arts. Inspired by Darwin's vision of seeing the entirety of life connected within a single powerful and humbling perspective, EvoS New Paltz embarked on a journey to bring the ideas of evolution to students across any and all academic disciplines.

As part of this intellectual journey, we started (in Spring of 2008) the annual EvoS Seminar series (supported largely by CAS – Campus Auxiliary Services) – a speaker series featuring intellectuals who address various areas of inquiry in a way that relates to Darwin's big idea. Since its inception, this series has included more than 50 major-league intellectuals – from various academic disciplines. These speakers have included Natalie Jermijenko (notable artist and environmentalist at NYU), David Sloan Wilson (biologist from Binghamton and originator of the EvoS idea), Robb Wolf (author of *The Paleo Solution* and a world-renowned voice on the topic of nutrition and exercise), Richard Wrangham (anthropologist at Harvard – and one of the most famous living primatologists), and Marlene Zuk (biologist at the University of Minnesota and one of the world's most significant living biologists) – and many more.

I want you to know that nearly all of these talks have been videotaped and are now live-streaming (for free) thanks to the outstanding work of New Paltz's office of Instructional Media Services (with special thanks to Keron Lewis). These talks are regularly taped via Mediasite software – and in 2011, we won an award for our Global Outreach from their parent company, Sonic Foundry.

The award we won from Sonic Foundry is significant in many ways – and it owes largely to the work of a major National Science Foundation grant that we were awarded (along with Binghamton – with essential roles played by New Paltz biology professor Jennifer Waldo and New Paltz psychology professor Rosemarie Sokol-Chang – and David Sloan Wilson, Director of EvoS at Binghamton). Working together, we worked to cultivate our speaker series – and to create a website for the EvoS Consortium – evostudies.org. Evostudies.org (currently managed by New Paltz psychology graduate student, Briana Tauber), has received well over 100,000 page views since its inception – and it includes the world's largest database of free-and-streaming videos related to the topic of evolution. Yes, the world's largest.

Given how intellectually rich our community is, New Paltz is, not surprisingly, at the forefront of evolution education – and, importantly, is at the VERY forefront when it comes to *evolution education outreach*. The support of the university – and of the broader community that we call home – has been absolutely foundational in allowing this to be the case. And

in case you didn't realize how central our little town is in shaping the nature of evolutionary studies in the field of education on a global scale, I just wanted you to know.

Thanks a ton to the broader community for your support and for allowing EvoS New Paltz to grow as it has.

Genuinely,

Glenn Geher, Director of EvoS – State University of New York at New Paltz

Happy 10th Anniversary EvoS

By: David Sloan Wilson
dwilson@binghamton.edu

Director of EvoS and SUNY Distinguished Professor for the Departments of Biology and Anthropology at Binghamton University

This year marks the 10th anniversary of Binghamton University's EvoS program. To my knowledge, it was the first to teach evolution as a theory that applies to all human-related subjects in addition to the biological sciences at a campus-wide scale. This synthesis was already taking place at the level of research and scholarship worldwide, but given the conservatism of academic culture, I knew that decades would pass before it was reflected in undergraduate and graduate education. EvoS was designed to accelerate the process.

Ten years later, EvoS has a beautiful new headquarters and hundreds of students take EvoS-related courses. The EvoS seminar series, which brings ten speakers to campus every semester, is attended by a big room full of undergraduate students in addition to graduate students and faculty. The speakers are typically amazed that the undergraduates display such interest and ask such sophisticated questions. One of our recent speakers, Dan Eisenberg, was an EvoS student when the program started, attended graduate school at Northwestern University, and had just accepted a position at the University of Washington's anthropology department prior to his visit. He said that the questions posed by the EvoS undergraduate students were better than those he had received after his job seminar!

EvoS has also spilled out into the community in the form of the Binghamton Neighborhood Project. Field studies are the backbone of evolutionary science, but people are seldom studied from all walks of life, as they go about their daily lives. What's business as usual for an evolutionist therefore provides a new model for community-based research and action. I'm especially proud that BNP research has led to both high quality academic publications and practical solutions to improving the quality of life, illustrating a positive trade-off between basic and applied science rather than the negative trade-off that is typically imagined.

NSF funding awarded to EvoS-Binghamton and EvoS-New Paltz (the first sister program) during 2008-10 provided a big boost and enabled us to create a multi-institution consortium. Yet it also created an over-dependence on external funding at Binghamton. Work was required to convince our administration that if trans-disciplinarity is to be taken seriously, then a program such as EvoS requires the same kind of stable institutional support that is provided to academic departments. So far we have been successful at making this case, so the future of EvoS is assured at Binghamton for the time being.

The fate of other EvoS programs has been interesting to witness. Some get started easily while others fail despite heroic effort. There are even cases where biology departments stood in the way of EvoS programs because they felt territorial about evolution!

One thing that all EvoS programs share in common is the enthusiastic student response. Students love EvoS for

Binghamton University President, Harvey Stenger, speaking at the EvoS Office Opening

the same reasons that I love evolutionary theory—It provides a single theoretical framework for studying all living processes, which includes all human processes. Evolutionary biologists routinely switch their study organisms and topics; from primates to birds, from mating to parental care, and so on. They tend to take this kind of effortless trans-disciplinarity for granted but it is rare in the human-related disciplines. Economists don't morph into religious scholars as easily as primatologists can morph into ornithologists.

If this kind of trans-disciplinarity can be taught to college students and extended beyond the biological sciences, there is every reason to do so. It would solve a major problem in education, which is the lack of transfer of knowledge across subject domains. All too often, what's taught in one class doesn't carry over to other classes. One of my former graduate students named Rick Kauffman studied the effect of EvoS training on critical thinking skills and transfer of knowledge across domains as part of his PhD thesis. Students enrolled in our "Evolution for Everyone" course (Biol 105) wrote short answers to essay questions at the beginning and end of the semester. The questions were on both biological and social science topics. The essays were evaluated for critical thinking skills using both human raters and the word analysis program Linguistic Inquiry and Word Count (LIWC), which counts the frequency of words connoting cognitive operations. Essays written at the end of the semester demonstrated higher critical thinking skills for both biological and social science questions.

I encourage others to use EvoS programs and courses to study the effect of evolutionary training on critical thinking skills and transfer of knowledge across domains. It could provide a powerful argument for implementing EvoS programs at colleges and universities worldwide—not just to learn about evolution, but to think smarter.

EvoS-Madagascar: Growing Reasons for Optimism

By: Dustin Eirdosh

Director, The Positive Education Action-Research (PEAR) Laboratory
University of Toliara, Atsimo Andrefana, Madgascar

When I started an EvoS program at the University of Toliara in southwestern Madagascar almost two years ago, many of my colleagues across the globe seemed to sort of smirk and offer a skeptical 'good luck with that' response. Just over one month ago, I was ready to concede to

established consensus that this simply cannot be done. Basic science literacy has been so challenging, that my undergraduate courses had devolved into little more than implementing a middle school civics curriculum hinting at concepts from the evolution of cooperation. Even this was not going particularly well. Coordination is so difficult here - the translation assistants for my last course were only available for 10% of the specified time. Not only were all of the computers for the psychology department stolen last summer, all of the computers for the agriculture faculty were stolen just one month ago. One might ask, how is it even possible that an entire departments computer resources can be stolen (housing all student data and curriculum!)? Well, the answer is that the campus became a social desert starting in April, when students were forced to strike due to multiple levels of corruption and mismanagement leading to an 11-month withholding of their much needed (nationally funded) scholarship payments. I hinted at these challenges during a short video presentation at the April 14th session of the *NorthEastern Evolutionary Psychology Society* (NEEPS), but my brief field report admittedly glossed over a deeper feeling that the EvoS-Madagascar experiment was coming to an end.

I have learned so much about how EvoS *could* be developed here, and I have maintained a strong conviction for its potential to yield important positive results for these communities. Yet, just one month ago, I was running out of ideas that could let us gain even a little traction. Just as I was about to pull the plug, I got a flash of insight from a most unexpected place - Alabama! Since NEEPS 2013, I'd been conspiring with Rebecca Burch at SUNY Oswego to connect our classrooms and, this year, she was able to sell Christopher Dana Lynn, director of the EvoS Program at University of Alabama and organizer of the SouthEastern Evolutionary Perspectives (SEEPS) group, to explore connections between our programs. Inspired by the incredible collaboration Dr. Lynn has developed with his neighboring Tuscaloosa Magnet School *(see the November 2013 EvoS Illuminate)*, the last month has allowed me to synthesize a 'life support' plan for EvoS-Madagascar in a direction I find most exciting. If you'll forgive the *partially* speculative nature of what follows, I offer a vision of what's "growing" within this most fragile of experiments in evolutionary studies.

The isolated coastal town of Ambola is primarily home to the Vezo (Vay-zoo) ethnic group. It is a truly unique slice of heaven-on-earth in some regards, yet will the Vezo and neighboring Mahafaly communities effectively cooperate to conserve the highest rates of endemism in all of Madagascar? And what will be their future quality of life? These questions have baffled development specialists of this specific region for well over a century now!

Out of humanitarian necessity, not to mention my own academic focus - civic engagement is a primary driver of our program here. But how to get it done, and with basically no

resources to speak of? After my NEEPS report and the collapse of productivity at University of Toliara, I had to clear my head. I took a couple of weeks at the beach, specifically, the isolated southwestern coastal village of Ambola (Ahm-boo-lah), one hour by boat and one hour by car from Toliara. This is one community where my wife conducts agricultural research. In this tiny fishery and farming-based economy, there rises above the spread of huts and sheet-metal housing, a towering hurricane-proof elementary school - by the name of ABC Domino. In fact, this school is part of a network of five such recent constructions from a Paris-based humanitarian organization, and all of these elementary schools surround the *Tsimanopetsose National Park* (or "Tsim" for those of us from away). That is, these are the youth and future guardians of Madagascar's region of highest endemism. That is - approximately 95% of species near this National Park reserve exist nowhere else on the planet. Despite this critical situation, a majority of these students have never been in the park itself. A short drive though these trash-strewn regional villages and degraded grazing commons reveal both recent and long-term challenges to solving the classic social-ecological dilemma of sustainability. Upon returning to the decidedly urban Toliara, I was able to reunite with Dr. Fredric Manjary, the director of the recently formed agricultural sciences faculty, with whom I worked just last year. Dr. Manjary took my wife and I to visit his faculty's most recent acquisition, a historic research farm of about 13 acres within a larger conservation plot on the edge of the city. This beautiful plot of land was developed to cutting-edge research standards by French colonialists some 60 years ago. Today, Dr. Manjary points to a gully where irrigation canals once existed, describing how this community resource was taken away in piecemeal chunks of concrete, by individuals acting in a very rational self-interest. Just beyond the canal, unknown city-dwellers chopped furiously at the stumps of papaya trees on the property - taking limited resources from the public university system in a completely unmonitored and unsanctioned environment. I sat down with Dr. Manjary to discuss his entire undergraduate degree program, and to see what an EvoS perspective might be able to offer. Here is a glimpse of the direction we are developing:

Dr. Frederic Manjay points to the theft of common pool resources on his faculty's newly acquired agricultural research farm.

- Agriculture undergraduates need an engaging core-course to give them "the big picture," convey the nature of science, and provide a sense of identity and purpose to their degree program. To this end, a newly re-vamped course will start the arriving first year students off right. Starting in July, approximately 15 undergraduates will experience an "applied research seminar" in which they will study the evolution of cooperation and will work to develop a management plan for the departments research farm based on the principles of prosocial group design that David Sloan Wilson and colleagues continue to advance based on the work of Elinor Ostrom.

- This applied research seminar will then recur each year, with students gradually developing experimental field trials, school-based community gardens, as well as mechanisms of common-pool resource management. I've essentially adapted the principles of prosocial group design into an instruction manual for cultivating community gardens and/or agricultural field trial research groups.

Perhaps EvoS-Madagascar will stop there: an innovative agricultural sciences program enhancement that uses Elinor Ostrom's framework to support better management of Madagascar's common pool resources. That would be very nice, and that is very much within reach. With a little help however, we can go so much farther. Dr. Manjary recognizes that his students need significant practice in communication and presentation skills. He also worries, appropriately, about his students' employment futures in a volatile developing economy. Our vision for phase II of this new trajectory is to connect our agricultural students directly into regional elementary and secondary schools - spreading school gardens and principles of prosocial group design around the region. The first schools on this list are the best managed in the region: the 5 primary schools of ABC Domino and the communities of Tsim National Park!

Phase III, if achievable, will generalize the application of theory behind these "gardens of democracy." There is a direct conceptual line between the classroom environments of community gardens, the cooperative management of large-scale commons, and the flourishing of a civic posture capable of combating widespread corruption. Direct as it may be, this line clearly meanders among the principles of prosocial group design, weaving meaning and action into the lives of individuals and their groups. School gardens (through the lens of Ostrom et.al) are what I referenced at NEEPS 2014 as a "back door" approach to civics- a way to reinvigorate a deeply 'indigenous' civic orientation in all of us, without violating the cultural norms of the given environment. The new research farm at the University of Toliara faculty of agricultural sciences represents an ability to create a unique EvoS-inspired professional development engine for educators of many age groups and disciplines.

EvoS-Madagascar is still very fragile - we still need help in this very challenging environment. Our network of friends is expanding in exciting ways. Dr. Burch's SUNY-Oswego Global Human Development course on poverty & inequality is set to connect with our students this fall. As well, we hope to connect with Dr.Lynn's University of Alabama EvoS

In partnership with local agronomists, coastal residents near the Ambola have begun to experiment with food gardens. Our aim is to teach agricultural sciences, evolutionary biology, and group cooperation skills by having undergraduates work directly with elementary school students to cultivate 'idea gardens' with native species and food crops.

students in the near future. Finally, part of the model we are developing is replicated from Stony Brook University's *Centre ValBio* in Ranomafana National Park, Madagascar. Dr. Patricia Wright and her colleagues have an inspiring model of international classroom connection between US and Malagasy students. This is a program we would love to replicate more widely in this very different southern region of the country. I welcome faculty and students to get in touch to see if your program might be able to cooperate with us in any way (Dustin@UniToliara.info).

EvoS at the University of Lisbon: What's been done and where to go next

By: Filipa Vala

Postdoc fellow at the Centre for Environmental Biology (CBA) of the Faculty of Sciences of the University of Lisbon

An evolutionary studies (EvoS) program was launched at the Faculty of Sciences of the University of Lisbon (Portugal) in 2011 (http://evos.fc.ul.pt/university.php), the first of its kind in Europe. The official ceremony to celebrate this was a one-day International Symposium on The Evolution of Free Will. The theme was addressed by evolutionary biologists David Sloan Wilson from Binghamton University (NY, USA) and Michael R. Rose from the University of California Irvine (USA), as well as economist José Maria Castro Caldas from the University of Coimbra (Portugal) and social psychologist Thomas Pollet from the Vrij University (The Netherlands). The turn-up was huge, with attendants from institutions and research centers from the University of Lisbon and elsewhere, covering a wide span of backgrounds including the natural sciences, neurobiology and psychology.

There is a growing consensus that evolutionary theory can, and, should be, used to understand all living processes, including those within the humanities. But, while most agree with this, few are able to explain why. The majority of those who cannot explain why evolutionary theory should be incorporated into the humanities include our politicians, ministers, teachers, philosophers, sociologists, doctors, journalists, and economists – the very professionals who teach us, study us, treat us, provide us with information, make important decisions concerning our societies, and design our laws and policies. Making a contribution to

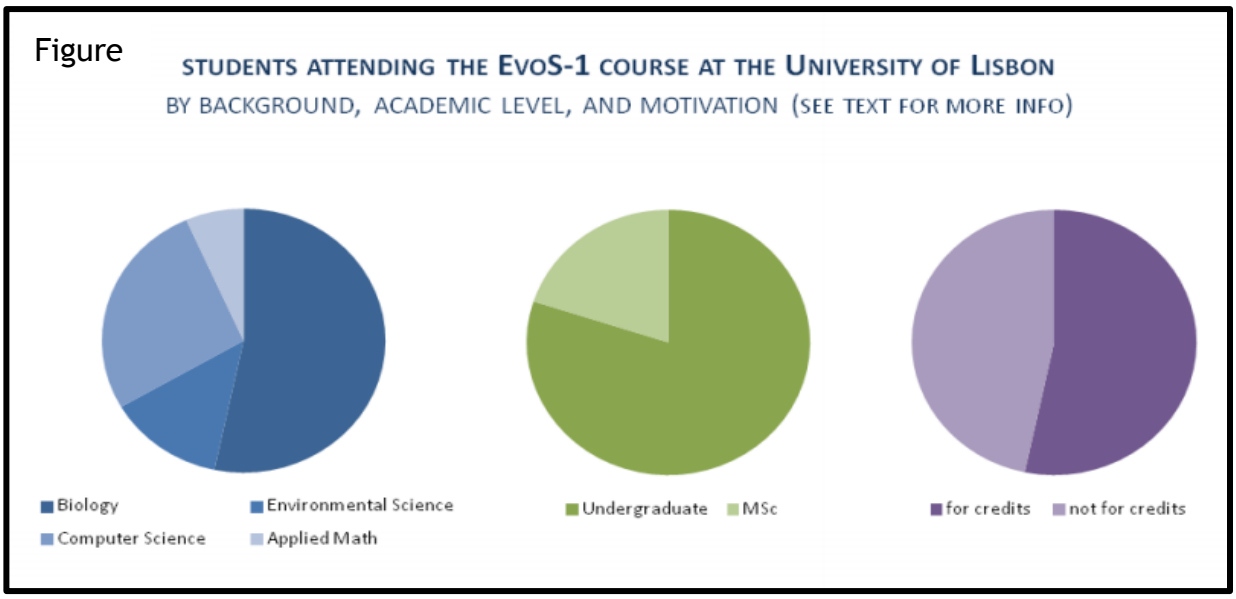
close this gap is, of course, a main goal of Evolutionary Studies programs everywhere, and thus also my main motivation to start an EvoS program at the University of Lisbon (UL). The turn-up at the EvoS symposium, and the diverse audience, was therefore quite reassuring. And I was not alone on this – there were others who thought it was interesting to have, for instance, economists discussing free will with biologists and social psychologists.

At the UL, EvoS is hosted by the Centre for Environmental Biology (CBA) (http://cba.fc.ul.pt/), which develops activities of research and technology transfer in the areas of Biodiversity, Environmental Biology, and Evolutionary Biology. The CBA also includes a group at the National Museum of Natural History and Science in Lisbon (Museu Nacional de História Natural e da Ciência, MUHNAC). EvoS at the UL was originally developed to include two types of activities: education and science communication initiatives aimed at communicating knowledge and progress in evolutionary studies to general audiences. In this respect, the relationship between CBA and the Museum has been quite important. I have collaborated and contributed to science communication activities developed with and by researchers from the Museum. These contributions include the publication of books (as author or as editor) and commissions as well as the contribution of texts to exhibitions. Further, in support of science communication, a few short films on evolution and related issues are currently being produced and will be published in the web soon. These will be made available to the EvoS consortium. The films in postproduction include a series of short interviews with David Sloan Wilson, José Maria Castro Caldas, Michael R. Rose, and Thomas V. Pollet - all speakers at the EvoS Symposium of 2011. António Damásio, a neuroscientist, will also be featured in an interview. We are also currently in production with two paleontologists - Rui Castanhahinha (from the Gulbenkian Institute for Science, Portugal) and Ricardo Araújo (from the Southern Methodist University, USA). With them, we are creating a short documentary titled, *Our cousin from Mozambique,* which tells the story of *Niassodon mfumukasi*, a fossil synapsid species from Mozambique. The story of this fossil will be used as a *leitmotif* to transmit knowledge on the evolution of mammals.

As for the education aspect, EvoS at the UL is comprised of two courses. The first is EvoS-1, a course for both undergraduates and other students who have no background in evolutionary theory. EvoS-1 is a "Free Course," and has been approved by the Faculty of Sciences of the University of Lisbon as a discipline with 3 European Credit Transfer and Accumulation System units (ECTS). ECTS is an academic credit system used by all countries that subscribed the Bologna Declaration, which allows students to transfer academic credits between universities and faculties. The fact that EvoS-1 is a "Free Course" means that students can enroll in this class even if their specific Bachelor or MSc program does not require these credits.

Figure 1 (see next page) summarizes the profile of students that have enrolled in EvoS-1 in the two years it has been offered. Students enrolled in EvoS-1 are mostly undergraduates. Over 50% are from programs in Biology, while students in environmental science, computer science, and applied math make up the rest of the population. Further, these students are almost equally split between taking the course for credits and taking it as a "Free Course." The latter result is particularly encouraging in that it may reflect an interest in the recognition for potential of evolutionary theory outside its main "habitat" – a course that students find worth pursuing even if it means extra work. I think the "volunteer" aspect these students present ("I'm here because I want to, not because I must or need to") is reflected in their enthusiasm and engagement in the class. Although there seems to be a lot of interest from students within these various disciplines, Figure 1 also shows, however, that so far, I have been unsuccessful in

Figure



attracting students from outside the so called "hard sciences" (the natural sciences, mathematics and engineering). I believe this is mostly due to lack of advertising. Increasing advertising and expanding our reach to other disciplines is one of our goals. Another aspect that should be intensified in the years to come is to have a series of meetings with other Faculties of the University of Lisbon with the goal of presenting the course to each Director while addressing the conditions necessary to have their students enroll. If these meetings are successful, each Faculty will be asked to include EvoS-1 in their list of available courses (the Bologna Declaration was useful but did not solve all bureaucratic problems).

The second course is EvoS-2 which targets mostly graduate students and students that already have a background in evolutionary theory. This course is offered as an advanced course of CBA, and will be offered for the first time this year in July. For EvoS-1, I spend about half the time teaching general evolution concepts, introducing mechanisms for cooperation, and discussing applications of this knowledge to problems faced by our societies. In EvoS-2, I will be able to have a more profound treatment of these applications and, in particular, will be able to mobilize knowledge from other scientific areas, including those within the social sciences. In EvoS-2, I will have time to address how the results from these other academic disciplines can be interpreted in light of evolution. Both EvoS courses are largely laidback in the sense that there is a lot of discussion; students focus on class readings and give presentations on papers and books chapters. Both courses have a few invited lecturers that present small talks on their own research.

Implementing, managing and lecturing for EvoS requires a lot of organization and production. Further, a lot of time is spent in fundraising where, unfortunately, returns per unit invested have been steadily diminishing. Nevertheless, I believe the time has come for EvoS at the University of Lisbon to expand its scope of action. It needs to move from science communication and education, to a more practical test of the potential for evolutionary theory to address questions outside the natural sciences. Thus, in my latest post-doc fellowship report to my financial institution (Fundação para a Ciência e a Tecnologia, Portugal), I have proposed to develop a line of research within the thematic scope of EvoS which is by definition, trans-disciplinary. One aim is to establish whether human behavior conforms to predictions of Multilevel Selection Theory (MLST).By using different treatments within an ultimatum game,

we may be able to contribute evidence for the utility of MLST as being an ultimate causal explanation for some default aspects of human behavior.

In the near future, I hope to distribute my time between education (courses EvoS-1 and EvoS-2), science communication (topics related to EvoS and evolution in general), activities related to managing and producing EvoS (fund raising and the production of activities), and research. I will not know whether the renewal request for my fellowship has been granted until September of this year. I am hoping to get approved for another three years, after which my time here will definitely end. One of the most serious problems EvoS at the University of Lisbon faces, in comparison to EvoS programs elsewhere, is presumably its continuity. As things stands, the program is managed and implemented by a single person who does not hold a position within the University. As such its continuity cannot, unfortunately, be guaranteed.

Testimony of Ana Bastos, a former EvoS-1 student at the University of Lisbon

Ana is a PhD student in Geophysical Science at the University of Lisbon.

I decided to attend EvoS-1 course on my last semester as an MSc student of Environmental Engineering, not for credits but out of curiosity. During my studies as an undergraduate and MSc student, I became more and more interested in topics concerning the relationship between humans and the environment- particularly on the conflicts between individual and collective interests and their consequences for the environment. EvoS-1 broadened my knowledge about the scientific advances in these areas of research, and has made me more aware of the importance of evolution in shaping the society we live in. I now see how evolution can be used as a key tool in helping us think about the future. For instance, I now see options related to dealing with environmental problems.

Filipa Vala provided an excellent selection of papers, from the fundamental texts related to evolution, to cutting edge research papers. She was also very keen on providing further reading materials in particular topics when I asked her. Furthermore, the teaching and learning in the class was based on multiple-way discussions and was excellent. It allowed people from different scientific fields to contribute with a particular and original perspective on each subject.

Following EvoS-1, I never stopped reading more about evolution and trying to think about my work as a geoscientist through an evolutionary perspective. I became very much interested in topics related to the beginning of life on the planet and its role in shaping (and being shaped by at the same time) our climate.

An *EvoS* Program Adapted to Community Colleges

By: Dr. Philip de Barros

Behavioral Sciences Department, Palomar College, San Marcos, California

Community colleges traditionally have served several functions: 1) provide technical or vocational A. A. Degrees; 2) prepare younger and older students for transfer to four-year institutions; and, 3) serve the broader community interested in lifelong learning. More recently, some states like California have recently converted their community college system into a formal transfer institution while retaining their technical and vocational degrees. This presents challenges to developing the kind of Evos course program possible at four-year colleges.

My training is in anthropology with an emphasis on archaeology. I have been Coordinator of the A.A. Degree Program in Archaeology at Palomar College since 1996. I also teach introductory courses in biological and cultural anthropology every semester. In the early 2000s, the Intelligent Design (ID) movement caught by attention, especially its attempts to convince legislatures and school districts to adopt a definition of science that includes supernatural causes and effects (which Kansas did briefly in the mid-2000s) and its efforts to get the concept of ID taught in high school biology classes. I developed a new class entitled, *Evolution, Science and Religion*, which I have taught since 2005. It regularly attracts 30-35 students. Most of the students tend to accept evolution as demonstrated by science but there are always some students who are either Biblical literalists or ID adherents. It has been one of the most satisfying and successful classes I have ever taught with very interesting discussions and very positive student feedback. As part of class preparation, I have read 35-40 books on the basic assumptions of science, the scientific method, the functions of religion in society, evolutionary theory, and various types of creationism. I have also attended numerous university conferences on evolution. I am essentially self-taught when it comes to evolution, going far beyond what is required to teach in Biological Anthropology, which apparently is not uncommon (David Sloan Wilson, p.c. 2008). Without question it has altered my world view to such an extent that fields like neuroscience, genetics, sociobiology, human behavioral ecology, and evolutionary psychology actively compete and/or complement my interests and research time in archaeology.

In 2007 I launched an annual conference at Palomar College entitled, *Exploring Darwin*, popularly known as "Darwin Days," which focused on the contributions of evolutionary theory to a wide variety of natural, social, and behavioral sciences. Guest speakers have come from the

University of California campuses in Los Angeles and San Diego, from the University of Southern California, the University of Chicago, Cal State San Marcos, Cal State Fullerton, the University of Arizona, Palomar College, and the San Diego Museum of Natural History. Speakers represented such disciplines as biology, paleontology, evolutionary psychology, primatology, game theory, archaeology, cultural anthropology, behavioral economics, and evolutionary medicine. Daniel Fessler, Director of the UCLA Center for Behavior, Evolution and Culture, has regularly encouraged graduate students from his program to give papers for this series. Pascal Gagneux, Co-Director of the Center for Academic Research and Training in Anthropogeny (CARTA) at UCSD, and I have developed an informal partnership with two components: he gives talks for the *Exploring Darwin* series and I encourage Palomar students to attend the once-or-twice-a-semester CARTA lecture series, with an average of 20 students attending. In late 2007, I read about David Sloan Wilson's efforts to create the *Evos Consortium*, and after we had a couple of very stimulating discussions over the phone, Palomar College joined the consortium.

The *Exploring Darwin* conference took place over a two-day period (Tuesdays and Wednesdays) in early November with presentations coinciding with scheduled course hours: 9:30-10:50; 11:00-12:20; 12:30-1:50; and 2:00-3:20. The talks were held in the Governing Board Room which holds up to 110 people. The program ran between 2007-2010 with excellent participation by both faculty and students, with some professors offering extra credit for attendance. The program was very popular with faculty and students, and many administrators strongly supported the program. In 2009, we had our normal 2-day conference, but we also celebrated Darwin's birthday with a special program held jointly between Cal State San Marcos and Palomar College with Professor Francisco Ayala from University of California at Irvine as guest speaker, followed by a musical presentation integrating evolution and music by Lisa and David Karrer.

Aside from the 2009 celebration with Professor Ayala, which required external funding including from the *Evos Consortium*, the costs of "Darwin Days" has been relatively modest. At most, speakers have been paid small honorariums ($50-100) and/or mileage. Many requested no fees or requested mileage only if they came from some distance. Our speakers have generally been eager to participate as they understood the inherent value of explaining to the public the important contributions of evolutionary theory

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24 November 2008

Robert Deegan
Office of the President
Palomar College
1140 W Mission Road
San Marcos, CA 92069

Dear President Deegan,

This is the second year that I have had the pleasure of speaking at the *Exploring Darwin* conference organized by Dr. Philip de Barros at Palomar.

The range and quality of the presentations, as well as the high attendance and appreciation of the attendees marks this as one of the best efforts at presenting evolutionary ideas to a general audience with which I have been involved.

As someone who has worked in general education and public outreach in science for 15 years, I realize the effort and dedication needed to make such events a success.

I look forward to the 2009 edition of the Conference and warmly congratulate Dr. de Barros for his time and energy in putting these conferences together.

Sincerely yours,

John Bragin
Lecturer
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jbragin@ucla.edu

cc:
Joseph Madrigal, VP Student Services
Mark Vernoy, Dean of Social & Behavioral Sciences
Terry Humphrey, Chair, Behavioral Sciences
Sherry Titus, Director of Student Affairs

COPY

Letter of praise for the program

to science and human life. Funding has come primarily from department deans and/or department chairs.

For a variety of reasons, including quintuple bypass heart surgery and a Fulbright grant which took me to West Africa for seven months, *Exploring Darwin* was not offered from 2011-2013.The current plan is to restart the series in the fall of 2014 in cooperation with the Earth and Life Sciences Departments. We will now be able to hold the conference in our new campus auditorium.

Given the more limited range of classes offered at a community college, it is more difficult to organize a broader program of courses focused on evolution, but we do have one mechanism which is now being actively encouraged at the college called Learning Communities. Learning communities have a long history and have been shown to be successful (see MDRC 2012 at http://www.mdrc.org/publication/what-have-we-learned-about-learning-communities-community-colleges). Several of my Behavioral Sciences colleagues have taught them in the past. A learning community has to be organized well in advance, as class schedule deadlines are usually a year before classes are taught. The plan is to teach 2-3 classes – for example, in Biology, Anthropology and Economics or two of these with English Composition -- all linked by an evolutionary theme. I am currently in discussions with members of the appropriate departments about such a program for fall of 2015.

I strongly urge other evolutionary enthusiasts, regardless of discipline, to try to develop something similar at your community college, regardless of where you are located. Palomar College draws from a large area of northern San Diego County, much of it very politically conservative. The County is also home to the Institute for Creation Research and its accompanying Creationist Museum founded by Henry Morris and Duane Gish. I anticipated some resistance to our efforts but was pleasantly surprised at how much positive support the program has received with no external or internal creationist protests or disruptions during its four-year run. In fact, we have had positive interactions with several Biblical literalists and/or ID adherents who attended some of the lectures.

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Darwinian Thinking Across the Disciplines and on the Internet

By Ellen McManus

Professor of English at Dominican University in River Forest, Illinois

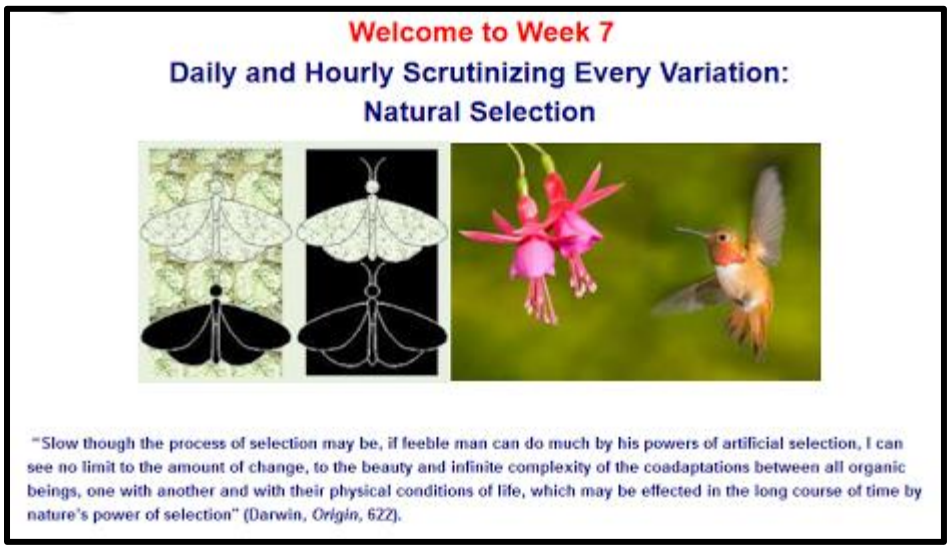
Integrative learning is a bit of a buzz phrase in higher education today. Beyond the buzz, though, there is a genuinely felt need. The world and its mysteries and problems are not organized by academic major. Specialized skills are needed for many jobs, but to thrive in most jobs and to understand the increasingly fragile world in which we all live, no matter what our

occupations, we must be able to make connections between kinds of knowledge, ways of thinking, and strategies for inhabiting the world. But robust and meaningful integrative learning opportunities are easier to propose as a goal than to embody in a syllabus or even a curriculum.

At Dominican University, where I teach English, integrative learning is likely to happen most robustly in our interdisciplinary liberal arts and sciences seminars, where integration of different kinds of knowledge and different perspectives is an explicit goal. In the honors version of the junior seminar, whose theme is Human Being and Natural Being, the common text is *On the Origin of Species*. Having been introduced to Darwinian thinking through the Literary Darwinists and to consilient thinking through E.O. Wilson and others, I found it hard to resist the prospect of teaching an interdisciplinary seminar with Darwin at the core. I proposed a seminar called Darwinian Thinking Across the Disciplines and taught it for the first time in the spring of 2014. It was an eye-opening—I'm tempted to say paradigm-shifting—experience. I already knew that evolutionary thinking is by nature both interdisciplinary and integrative, but I was surprised by its power to quickly draw students from a wide range of backgrounds into debate, conjecture, research, and eventually collaborative inquiry.

The students in the seminar were majors in accounting, apparel design, biology, biology-chemistry, business administration, education, English, international relations and diplomacy, neuroscience, nutrition and dietetics, political science, psychology, and sociology. They represented a wide range of cultural and religious backgrounds and political perspectives. Honors students all, they were smart, hardworking, and intellectually curious, which certainly contributed to the success of the course. But some, though passionately interested in other areas, had little interest in science, and some who loved science were skeptical about the idea that evolutionary thinking can illuminate phenomena outside of biology. I needed to get them talking to each other fairly quickly about interesting, timely, multifaceted topics.

Even honors students can find it hard to contribute to discussions about *The Origin of Species*. They may recognize the significance of its observations and theorizing, but partly for that very reason they have a hard time getting a purchase on it for discussion, beyond summary and paraphrase, though that is a good place to start. To motivate discussion and keep it lively, each week's reading included not only a chapter from either *The Origin*—sometimes supplemented with readings from David Reznick's *The* Origin *Then and Now*—or *The Voyage of the Beagle* but also two or three chapters from David Sloan Wilson's *Evolution for Everyone*, which moved students quickly through the basics of evolutionary theory and then into a series of topics, from morning sickness to religious worship, that were illuminated in surprising ways by evolutionary theory. In addition, each student was required to become familiar with one area—biology, paleontology, culture, health, arts, technology, religion, politics, mind, economy, business, morality, environment, or education—



from the online magazine *Evolution: This View of Life*.

The first substantial assignment was for each student to create a presentation, with audio, about the area of *This View of Life* that he or she had studied and to post this in a discussion forum so that the students could view and listen to each other's presentations and, most importantly, begin discussing shared interests and possible collaborations. In the meantime, they got to work on the second assignment, a literature review on the topic in their area that had most interested them. The final assignment was a proposal for a research or social action project involving evolutionary questions or evolutionary theory and ideally drawing on the research from their literature review. For this proposal, they had to collaborate with at least one classmate, ideally from a different major. One semester, of course, is not enough time to both plan and carry out a complex research or social action project, but I wanted students to think through the possibilities for such projects and, ideally, to do this in collaboration with classmates who brought to the project different perspectives, different knowledge, and different skills.

The proposals included one from a group of students in education, business, and political science for comparative, game-theory type research on cooperation and competition in the classroom, the workplace, and the political world; one from two students, in business and in apparel design, for research on attitudes toward the ethics of cosmetic surgery, taking into account the evolutionary perspective; one, from a business major who had done her literature review on business ethics and a psychology major who had done hers on primate morality, for a social action project to raise awareness among the American public about bonobo habitat loss; and one from students in political science and neuroscience for a social action project to raise empathic awareness in children about deforestation.

As is the case every semester for every course, there are things I would do differently next time. I would structure the literature review assignment so that it would lay the groundwork more effectively for the collaborative proposal, for which I would also require more background research. But considering that it was a first pass at a complicated assignment, I was gratified by the results. The proposals demonstrated genuine integrative thinking in which evolutionary theory provided a framework for seeing the world as an integrated whole and problems as requiring many kinds of knowledge and different perspectives to understand and solve.

I must mention one other thing about the success of the course: the fact that it was taught online. This decision was partly administrative and pragmatic; only one or two sections of the honors seminar can be offered each semester, and this made scheduling easier for students. However, my experience teaching literature courses online suggested that this might be a good decision pedagogically as well. While online teaching does not work equally well for all courses, it works surprisingly well for courses in which students need to discuss unfamiliar and complex material, in part simply because the asynchronous environment makes it more likely that students will have done the reading before participating, that quiet students will participate actively, and that all students, at least sometimes, will participate thoughtfully and with preparation rather than off the cuff or on the fly. More importantly, though, online teaching can make it easier to have layered discussions. For example, I wanted to make sure that students saw *The Origin* as an integral part of our discussions, and online discussions can be structured in a way that requires regular connections to be made between different readings. Thus while students naturally tended to have a more lively interest in the topics covered in *Evolution for Everyone*, the discussion questions prompted them throughout the course to refer to Darwin's evidence, arguments, and questions, so that by the end of the semester they were

quite comfortable referring to Darwinian thinking about human phenomena. Asynchronous discussions also make it much easier for students to read, reflect on, and discuss each other's work, which was particularly important in preparing for the collaborative project. Finally, I wanted the students to have an active familiarity with the many online resources for evolutionary thinking, and I was particularly gratified when one student commented at the end of the semester that she had *This View of Life* bookmarked so that she could keep up with the research and debates about her favorite topics.

One other benefit is that material from online courses is easily sharable. I will be delighted to share course materials with anyone interested in Darwinian thinking across the disciplines and even more delighted to receive critical feedback and suggestions about how to use evolutionary thinking more effectively for integrative learning.

NEEPS 2014 – New Paltz Reprise

By: Briana R. Tauber, Gökçe Sancak Aydın, and Glenn Geher

The 8th annual NorthEastern Evolutionary Psychology Society (NEEPS) conference took place at the State University of New York at New Paltz from April 10 – April 13 of this year. Since its inception, NEEPS has maintained strong bonds with the EvoS Consortium - and many of the EvoS Consortium schools, such as New Paltz, Binghamton, Alabama, and Albright, are consistently well-represented at NEEPS. The three-day conference, preceded by the Feminist Evolutionary Psychology Society (FEPS) meeting and the Applied Evolutionary Psychology Society (AEPS) meeting, was filled with talks and poster presentations from both academics and students alike. This year, we had five continents represented where students, faculty, and alumni from around the globe took part in conference activities - presenting posters and/or giving talks.

New Paltz Evolutionary Psychology Lab at NEEPS 2014

This year's conference included a unique event in an affiliated talk (hosted by the Philosophy Department) by Philip Kitcher of Columbia University, three special symposia (Evolutionary Psychology and Health,

Evolutionary Psychology and the Urban Experience, and Feminist Evolutionary Psychology), two Banquets, EP charades, the annual NEEPS 5K, awesome NEEPS 2014 t-shirts, and a book signing! The keynote speakers included world-renowned David Buss, Professor of Psychology at the University of Texas at Austin, and past NEEPS President, Rosemarie Sokol-Chang, of the American Psychological Association.

New Paltz students, alumni, and faculty were well-represented at NEEPS 2014, including Ana Cañas (B.A., 2013), Rachael A. Carmen (M.A., 2013), Haley M. Dillon (M.A., 2011), Christopher Farrington (M.A., 2016), Jessica Fell (M.A., 2014), Bernadine Gangemi (B.A., 2014), Glenn Geher (New Paltz faculty), Daniel J. Glass (M.A., 2012), Morgan Gleason (M.A., 2014), Amanda E. Guitar (M.A., 2013), Raina Hafftka (B.A., 2013), Laura L. Johnsen (B.A., 2011), John M. Montgomery (New Paltz faculty), Rebecca L. Newmark (M.A., 2013), Melvin M. Philip (M.A.), Gökçe Sancak Aydın (visiting scholar), Andrew Shimkus (M.A., 2015), Rosemarie I. Sokol-Chang (New Paltz faculty), Briana R. Tauber (M.A., 2014), Chris Tripoli (visiting scholar), and Alexandra VanBerge (M.A., 2016). These scholars gave presentations on such diverse topics as mating-relevant behavior, authenticity in mating, academic achievement in different educational settings, and evolutionary informed fitness. Over 20 students at New Paltz stepped up to volunteer to help organize and implement this conference – most of whom were psychology majors.

Overseen by NEEPS President Daniel Kruger, along with the help of this year's local hosts at New Paltz, the conference was a huge success. We are all looking forward to attending next year's conference which will be hosted by Dan Glass (MA in psychology, 2012, and current doctoral student in clinical psychology) at Suffolk University in Boston, Massachusetts.

New Paltz Evolutionary Psychology Lab Alumni

Becoming an EvoS Program Coordinator: An Interview with Binghamton's Hadassah Head

By: Arryana Olavarria

Arryana Olavarria is a junior at Binghamton University majoring in English with a concentration in Rhetoric.

Binghamton's Evolutionary Studies Program Project Coordinator, Hadassah Head

Giving back to your school, hometown, or to the advancement of the community is something most people hope to do one day. Not everyone however, gets the opportunity to be able to give back to all three at once, as Evolutionary Studies Program Project Coordinator Hadassah Head has.

Head grew up in Binghamton, New York after her father got a teaching position in the Math Department at Binghamton University when she was a young child.

"I knew a lot of the faculty socially from childhood," Head said. Her father's faculty position made the university another home during her childhood years, she said. Head was even enrolled in the campus kindergarten, which was located in the basement of one of the now extinct Newing Community buildings.

During her later years, the campus became a more permanent home for her, with her acceptance and enrollment to Binghamton University for both her undergraduate and graduate experience, graduating in 2012.

"I came here and got to know more faculty and had a lot of interests as an undergrad," Head said. Not only did she major in Math and minor in Russian Eastern European Studies, but she also nearly completed a Human Development degree. She enjoyed learning about new things and did so through her extracurricular activities, which include African Drum Ensemble, and by taking classes in all different subjects that interested her, she said.

"I wasn't really sure what I wanted to do," Head said. After completing her undergraduate degree, Head's future was still uncertain to her, but that did not stop her from working towards clearing it up.

With the economy at a low point in 2007, she joined Americorps Rural Health Service Corps, a local branch of Americorp committed to improving the health and lives of people living in South Central New York State.

"I'm passionate about doing nonprofit work and helping people," Head said. She worked different jobs during this time in her life, that helped her give back in various ways, for example math substitute teaching, Conversational English coaching to people overseas and even worked on the Obama campaign. All of her work proved her want to help people, she said, but with her math major she didn't know what or how.

During her undergraduate years, she held a job through the Watson school, recording graduate Engineering classes, she said. She eventually was able to take one of the classes and became interested in systems thinking which started her journey to her positions in the field she has been able to use to fulfill her goal of helping people.

"It would probably be good if more people from nonprofits came from engineering and these types of backgrounds. You'll have different ideas and ask different questions," Head said in regards to how she has had a hand in giving back. She was fortunate enough to get funding to do her master's in Systems Science at Binghamton through an NSF grant titled "Evolutionary Perspective on Collective Decision-Making ." Through her work during her graduate years, she found her "niche," she said.

"I got to be a part of a team of some amazing people," Head said. The grant was shared between faculty in the Watson school of Engineering and Applied Science and the School of Management, therefore she was surrounded by many established faculty as well as researching students from numerous backgrounds. She was also introduced to the world of EvoS during this time working with Professor Hiroki Sayama and was a part of the EvoS graduate certificate program.

"I became interested in evolution by looking at it as a model and a pattern. Not necessarily biological but as a reoccurring pattern. Fitting to me coming from system science," Head said.

Head did not have the science background that many others in the program had, although she did and still does reads books, stays up to date with current news in evolution as well as attends and plans seminar talks on evolution.

"I never took barely any science classes, I was intimidated by the pre-med students. We always hear about them," Head said. However, her systems background allowed her to see evolution through a different lens.

"Look at things in relationships, if you remove the labels from one set of things in relationship, or system, and the things in relationship pattern is the same as the things in another relationship pattern even if they are different thing, then what can those similarities tell us," Head said as

she described her view on evolution. With her background in systems science, her work in the EvoS program as well as many other projects has allowed her to utilize her skill to do rewarding work.

Head has been a part of numerous successful projects, one being a website created by her friend Robert Kadar, who as a graduate student had an idea about an online magazine that would be a popular source for all things evolution. The project was then funded through a Kickstarter. Binghamton University eventually became a sponsor and redesigned the prototype. The website is currently an up and running called Evolution: This View of Life featuring well-known published and established editors. Through her work on the magazine, which was an idea pushed forward by her current boss David Sloan Wilson, was she able to get her position in EvoS at Binghamton University, she said.

After Head finished her master's program, Wilson offered Head a position at EvoS. Since then, she has put together seminars where speakers come to discuss evolution in all fields. She also brings in at least one alumni every semester in order to let the students know "It's within reach", Head said.

Since Binghamton is the first program of its type and is still developing into its own, her job is more than just doing her job, but also making sure to create a foundation for EvoS that will help it continue to grow. Through her work in the EvoS program "we are doing something, and people care," Head said.

New advancements on evolution and the way we understand it are also developing and Head's role in the EvoS program is putting it on the map. Although it is not a department, and does not have the resources that department are accessible to, Head continues to develop the program as much as she can with what she can.

Ready for the world, Head is applying the skills she's acquired throughout her many walks of life to further the knowledge of the world. "I am not timid," Head said

EvoS Island Hopping

By: Melvin Philip

Ecology, Evolution, and Behavior Graduate Student at Binghamton University, working with Dr. David Sloan Wilson

Evolutionary theory first captured my attention while I was an undergraduate at the University at Albany. To provide an example of post-hoc tests in his experimental psychology class, Dr. Gordon Gallup talked about some findings from his study examining the antidepressant properties of human semen on females. I became fascinated by the not-so-obvious connection between the physiological substance produced by males and the psychological effects exhibited by females, and this fascination sparked my appreciation for the theory that led to this research.

I decided to take Dr. Gallup's evolutionary psychology class to learn more about evolution and human behavior, a topic that was not touched upon in my previous coursework as a biological sciences student. In that class, I learned about evolutionary theory's power to explain human cognition and behavior. Dr. Gallup emphasized the importance of reproductive success with respect to evolution and how sex is the mechanism by which beneficial traits are passed on from one generation to the next in sexually reproducing species. I learned about a plethora of evolved psychological mechanisms, including the brain cooling effects of yawning, the tactics that males use to assure paternity (e.g., mate guarding, semen displacement), and the influence of ovulation on female cognition, physiology, and behavior. I was shocked by how well evolutionary theory could explain why people engaged in such behaviors, especially in comparison to the explanations that one would make using the standard social science model as a lens. After taking this course and working in Dr. Gallup's Evolution and Human Behavior Laboratory, I decided to pursue further study in the subject by working with Dr. Glenn Geher at SUNY New Paltz.

SUNY New Paltz had a fully-fledged Evolutionary Studies Program. Unlike many campuses, where evolutionary scientists are largely isolated from one another, the program connected scholars from many different departments (e.g., Anthropology, Art History, Biology, English, Psychology) together to provide students a track to learn about a variety of different topics. The best feature of the program is the speaker series, which brings evolutionary scholars from other institutions to the campus to speak about their research. I got to see excellent presentations from researchers, including Drs. Justin Garcia and Geoffrey Miller, and Robb Wolf. I also worked with Drs. Geher and Widman on research examining mate choice, partner preferences, and religion from an evolutionary perspective.

I am now a graduate student in the Ecology, Evolution, and Behavior program at Binghamton University where I work with Dr. David Sloan Wilson, who founded the world's first Evolutionary Studies Program at BingU about 10 years ago. It's an honor to work with such a prolific scientist. Since arriving, I have embraced cultural evolution and multilevel selection theory into my research lines, going beyond the traditional genetic view of evolution that dominates the field now. We work together to apply the core design principles for the efficacy of groups to the world of business. I also get to see excellent presentations through BingU's EvoS speaker series.

Melvin standing in front of David Sloan Wilson's door

It's been an interesting journey to get to where I am now. To me, it's a prime example of the power of the evolutionary perspective. Before I was introduced to the theory, I moved

through undergraduate classes in a largely automatic fashion. Stumbling upon Darwin's dangerous idea changed the way I think and gave me purpose. In the future, I hope to continue using these evolutionary principles to guide my teaching and research on human nature.

Evolutionary Mismatch and the Ancestral Health Approach

By: J. Brett Smith

Brett with a Blue Catfish, captured and released on Alabama River near Monroeville, AL.

I left college with a M.S. and B.S. in Biology and a B.A. in Philosophy from the University of Alabama in 2003. After a year or so working construction and teaching biology as an adjunct, I started working with the State of Alabama as an aquatic biologist, where I am now employed by the Geological Survey of Alabama, which is located on the UA campus in Tuscaloosa. As a member of the Univ. of Alabama Evolution Working Group (http://evolution.as.ua.edu/), sometime around 2009, I suggested that we create an EvoS Program after I discovered the EvoS Consortium website. Professors Christopher Lynn from Anthropology and Leslie Rissler from Biology took the ball, ran with it, made it happen, and now my beloved alma mater has a cadre of curious and motivated students, active all across campus, who view the world with an evolutionary perspective.

More recently for me, however, Darwinism leapt off the page and out of the theoretical realm when I started eating a paleo diet in March 2012. I lost some extra weight immediately, but over time, I noticed improvements in joint pain, seasonal allergies, anxiety, and general lethargy. Then, a year after being on a rather high fat version of paleo, I had my lipid profile tested. I was amazed to see that I inverted my HDL:LDL ratio, and saw triglycerides come down from the 150-200 mg/dl range (an early sign of insulin resistance and pre-diabetes) to more like 40-80 mg/dl (a range which, according to this view, is more like the ancestrally appropriate range for humans). I endured fewer caveman jokes thereafter…

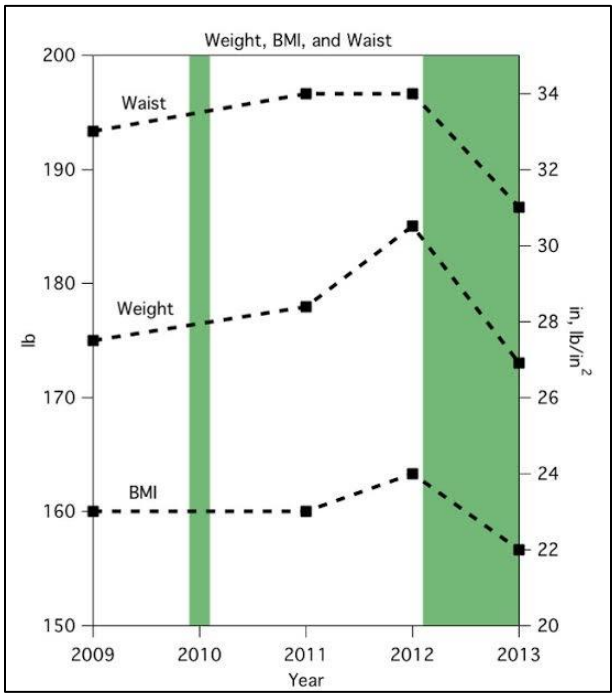
Last August, I attended the 3rd Ancestral Health Symposium in Atlanta, GA, and presented a poster of my N=1 self-experiment. The sophistication of the presentations, as well as the intense passion of the attendees, blew me away. I made many friends that weekend and now serve on the Program Committee for the 2014 Ancestral Health Symposium (http://www.ancestralhealth.org/symposium) , to be held in Berkeley, CA later this year. The Ancestral Health Society (http://www.ancestralhealth.org/) also recently created an open-access, peer-reviewed, online journal called the *Journal of Evolution and Health* (http://jevohealth.com/).

Then, in April of this year, I travelled to Austin, TX, for the 3rd Paleo f(x) Ancestral Momentum: Theory to Practice Symposium (http://www.paleofx.com/), where I participated on a panel discussion on the ways in which modern environmental variables perhaps lead to pathologies of evolutionary mismatch in young males.

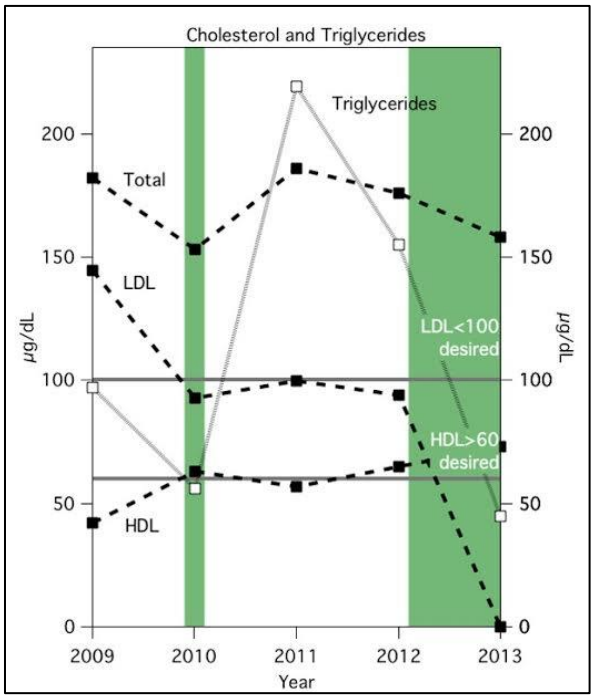
AHS13 Speakers' Dinner at the Atlanta home of Dr. Boyd Eaton, physician and co-author of *The Paleo Prescription*

What many people may not appreciate fully is that "paleo" is more than just a diet; it is part of a larger approach to deal with diseases of mismatch of all sorts, from obesity to autoimmune disorders to anxiety to dentistry, and involves tweaking multiple elements of our environments, including sleep, exercise, light exposure, as well as diet. Efforts in this endeavor stretch all the way from research labs to the kitchens of ordinary citizens.

In the future, my plans are to continue to experiment with my own lifestyle, research the basic theoretical foundations of evolutionary mismatch, and hopefully share thoughts about this new approach with the Univ. of Alabama community as well as the larger EvoS Consortium through my EvoS blog (if I can get my thoughts organized about this truly innovative and fast-moving new approach). I can be reached at j.brett.smith@gmail.com or via https://www.facebook.com/jbrettsmith



Individual results of a paleo diet on weight, BMI, and Waist Circumference



Individual results of a paleo diet on Total, LDL, and HDL cholesterol, and Triglycerides

EvoS grad lunches, interdisciplinary networking with a side of fries

By: Matthew Lundquist

Matthew is a Ph.D. student in Ecology, Evolution, and Behavior in the Biological Science Department at Binghamton University. He is also pursuing an EvoS certificate. His adviser is Dr. Weixing Zhu and his research interests include urban and stream ecology and aquatic invertebrates.

A major aim for the Evolutionary Studies Program (EvoS) is to encourage the development of interdisciplinary thinking and collaborations between academic departments at Binghamton University and between scientists at universities around the country, and the world. One of the best ways to do this is through informal gatherings and events that encourage casual discussion and collaboration that some might call the "water cooler effect." Put a few scientists and students with common interests in a room with some food and an air of open discussion, you never know what will come out.

To encourage interdisciplinary scientific discussions, nearly every Monday afternoon during the regular school year, EvoS invites a speaker from either BU or from another university to give a seminar detailing their research and interests in evolution. Afterwards, undergraduate and graduate students registered for seminar class credits have an opportunity to grill the speaker on their talk. This encourages students to think critically about different research topics in evolution and emulates the experience of being at a scientific conference. However, during the day before their seminar, EvoS speakers are invited to meet with faculty and students. They also need to eat! To this end, EvoS organizes a "Graduate Student Lunch" with the invited speaker and, as the name implies, invites graduate students to attend.

The "Graduate Student Lunch" is open to all EvoS graduate students whether or not they are registered for the seminar class. Additionally, for the first handful of students who RSVP, lunch is provided by the Department of Biological Sciences. Free food, if you did not know, almost always guarantees a good turnout for graduate student events. This being said, the lunches attract between five and fifteen graduate students from a number of departments including from both the liberal arts college and the professional schools such as Biology,

Sarah Radkte with Bio and Anthro graduate students

Anthropology, Geography, Systems Science, and Computer Science and these attendees include both EvoS lunch regulars and a few new faces. These lunches therefore facilitate interactions among students from different departments, something that they might not get the chance to do otherwise. As an EvoS lunch regular myself, and a major organizer of the lunches, I have had a lot of opportunities to meet people that in most other circumstances, I would have never gotten a chance to know.

Other than just an opportunity for free food and to meet other students and the speaker, the EvoS graduate lunch is an opportunity for graduate students and the invited speaker to interact and ask questions in a casual, unstructured environment. Questions tend to be geared towards current research topics, experiences in graduate school, finding jobs as graduates, and daily life as a professor. These questions are important to graduate students and because invited speakers tend to be from a number of phases in their careers – from new hires to senior tenured professors - it can give the students a lens into their futures as scientists and educators.

Biologist Bruce Robertson with a mix of Anthro and Bio students

Discussions can also stray into the personal and the odd because of the unstructured nature of the EvoS lunches. For example, a discussion about field work in hominid bone research has strayed into a discussion about Big Foot and alien skulls on the History Channel. These sort of deviations from the hard science that is usually reserved for seminars and individual meetings serve to enhance both the personal connections between students and speakers but also to reveal the human side of science, no matter what field you are in.

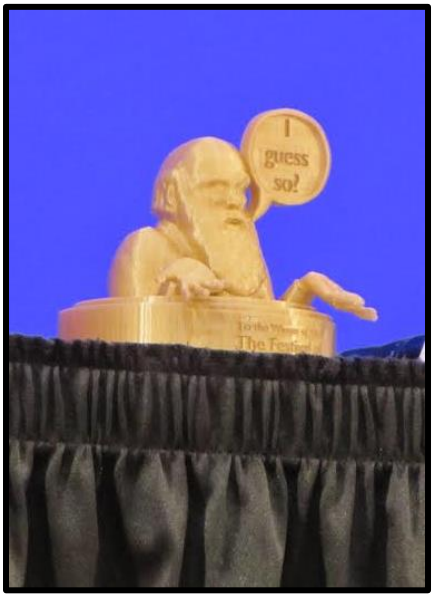
The EvoS lunches are a wonderful opportunity for graduate students and invited speakers to interact and share their common interests and learn new things about the scientific process and the scientific community. The lunches also serve as a much needed break from the toils of graduate life and to have a meal with good and interesting people.

Bad Ad Hoc Hypotheses Festival: A Success Story

(No spoilers included)

By: Hadassah Head
Tweets at @Haddie

Hadassah is the BU EvoS Coordinator and Special Projects Coordinator for Evolution: This View of Life



On January 24th 2013, I contacted Zach Weinersmith after he wrote a comic strip about bad evolutionary science that I thought was hilarious (View comic here: http://bahfest.com/). I was interested in creating a "Just So" story writing competition for Evolution: This View of Life (TVOL). My idea was to have the winners' work featured on the front cover on April Fool's Day. I contacted Zach, who writes and illustrates Saturday Morning Breakfast Cereal (SMBC) (http://www.smbc-comics.com/), to see if he would endorse the project and provide a cartoon as a grand prize. To my surprise, he quickly replied that, unfortunately, he could not endorse the project, because he would be running his own event based on his comic and wished me luck. I shot him back an email asking if the EvoS consortium and TVOL could be official sponsors of his event. To my surprise, he liked the idea. I agreed to work with David Sloan Wilson to get him an esteemed panel of judges and to advertise through our evolution networks to help drum up submissions.

The date was set for April 20th 2013, to be held at the MIT campus in Cambridge Massachusetts. A room for about 500 people was reserved, and we got national coverage promoting the event. Both SUNY New Paltz EvoS director Glenn Geher and I got interviewed for Live Science (Read interview here: http://www.livescience.com/28826-bad-evolutionary-theory-festival.html). I interviewed Zach and Kelly Weinersmith for TVOL (View interview here: http://www.thisviewoflife.com/index.php/magazine/articles/the-festival-of-bad-ad-hoc-hypotheses-bah). We rapidly sold out the event.

Zach Weinersmith

On April 19th, I was at NYU Stern for an Evolution Institute workshop on "Darwin's Business" when I heard the news that the Boston Marathon Bombing perpetrators were shooting and that Boston

and surrounding areas were in lockdown. We decided to pull the plug on the event and reschedule. Because we had sold out the event, we decided to reserve a larger venue for our new date in the fall.

On October 6th 2014 SMBC, Breadpig, and the EvoS consortium finally hosted the first ever Festival of Bad Ad Hoc Hypotheses (BAH!) at MIT in Cambridge Massachusetts. The esteemed judges were in place including Robin Abrahams, Dany Adams, and Richard Wrangham. Robin Abrahams has many claims to fame including the Boston Globe column "Miss Conduct." She also happens to be the wife of Marc Abrahams who is the publisher of the Annals of Improbable Research and the creator of the Ig Nobel Prize. Dany Adams is a Biology professor at Tufts University. Richard Wrangham is an Anthropology professor at Harvard.

About 1000 people showed up to witness the competition first hand and another 800 or so watched live online. As of May 22th 2014, Zach's keynote address from the event has well over 50k views on YouTube (View video here: http://www.youtube.com/watch?v=94_omZ2RnfI). Each time it is played, the viewer sees the words "EvoS Consortium" scrolled across their screen. As for the talks themselves, they were all hilarious and well thought out arguments about things that are clearly wrong. I had moments where I almost believed that these hypotheses might have some merit, especially during the Tomer Ullman's winning presentation. All of the presentations are available on YouTube.

This was a truly amazing event that I am so happy to have been a part of, while bringing attention to the EvoS Consortium. This year, there will be a BAHFest West and a BAHFest East. BAHFest West will be in San Francisco on October 25th 2014 and BAHFest East will again be in Cambridge Massachusetts (date is TBD). I am hoping that EvoS consortium members will consider submitting hypotheses. Even if you don't submit, it is a fun event to attend. I have been asked back to help with BAHFest East, and again, the EvoS Consortium and TVOL will be sponsors! Follow @BAHFest on twitter to keep up to date on when we open for submissions.

Please contact me if you are interested in helping me increase awareness about the EvoS Consortium at an event filled with people who love evolution. For example, I could use help with all of the following:

- Organizing car share to the event from your school
- Organizing room sharing in Cambridge
- Flyering on your campus
- Designing something for EvoS consortium members to wear at the event (pins or tees)
- Distributing EvoS consortium information at the event
- Developing materials to hand out

I look forward to hearing from you!

Hadassah with Darwin looking doubtful

This newsletter was edited by Briana R. Tauber.

Special thanks to Hadassah Head who helped collect articles and pictures, and to all those who contributed to this issue.

Don't forget to visit the EvoS Consortium website at http://evostudies.org/!