The EvoS Illuminate

The Newsletter of the EvoS Consortium

The title of this newsletter is derived from the Jesuit Priest and scholar Pierre Teilhard de Chardin who stated that "Evolution is a light which illuminates all facts, a trajectory which all lines of though must follow this is what evolution is" (as cited by Dobzhansky, 1973).

What's New in EvoS

New Full-Blown EvoS Program, at Alabama!

We would like to extend a warm welcome to the world's newest EvoS minor, offered at the University of Alabama. U of A holds the honor of being the first EvoS program in the southern US funded partly by the EvoS grant. This brings the number of EvoS member institutions with fully developed EvoS minors up to four (including, in addition, Albright College, Binghamton, and New Paltz college) – and the total member institutions (with an EvoS program at any level) now at a solid 42-we're always growing!

Newly Revised Website

We are pleased to announce the launch the newly revised EvoS Website. The baton has now passed from Rosemarie Sokol Chang to New Paltz psychology graduate student, Mary Finn (who can be reached at <u>evostudies@gmail.com</u>). Rosemarie Sokol Chang will remain editor of *EvoS Journal*.

With a whole new look, an enhanced interface, and the addition of new links and teaching materials, www.evostudies.org is constantly being improved to better serve the members of the EvoS community. Members are encouraged to visit the new site, and to utilize the various teaching modules, sample lectures, activities and assignments found there. We do ask that members cite their sources when using these materials.

An integral part of the new site is the continuation of our EvoS blogging series. We'd like to welcome Dan Tuminelli O'Brien, our newest blogger. His blog, "Everyday Evolution" utilizes both anecdotes and scientific studies to illustrate the role of evolution in our most mundane, everyday activities. Be sure to catch up with your old favorites as well, like Glenn Geher's "Building Darwin's Bridges" and Rosemarie Sokol Chang's "Evolution Matters." Feel free to comment on any of our author's blogs. Interaction and feedback comprise a primary goal of the EvoS blogs!

We'd like to remind our readers that the EvoS

Consortium is still featuring rotating logos. Submission guidelines can be found on the EvoS website. Logos will be featured on the website and in the next edition of the EvoS Illuminate. So if you, or anyone you know, is an artist and would like to display his or her talent, send an email to Mary Finn at <u>evostudies@gmail.com</u>

EvoS Journal

EvoS Journal: Journal of the Evolutionary Studies Consortium, is currently on its second volume and second issue, and is frequently updated with new articles. We would like to again formally invite all scholars to contribute their evolution themed works to *EvoS Journal*. No matter what the discipline, be it from the sciences, arts, or humanities, there is a place for all types of works regarding evolution in *EvoS Journal*. And note that *EvoS Journal* continues to feature (a) work from scholars who write about the current state of evolutionary studies in higher education as well as (b) papers primarily written by undergraduate students that connect any academic area with evolution.



NEEPS 2011 at Binghamton

The North Eastern Evolutionary Psychology Society, the first regional sister organization of the Human Behavior and Evolution Society, is please to announce the 5th Annual Conference scheduled from Friday, April 1st through Sunday, April 3rd, 2011 at Binghamton University, State University of New York. There will be a workshop meeting of the Feminist Evolutionary Psychology Society (FEPS) on March 31st, with the workshop for the Applied Evolutionary Psychology Society (AEPS) to be determined.

Keynote Speakers:

Dr. Sarah Hrdy of the Department of Anthropology at the University of California, Davis Dr. Daniel Nettle of the Centre for Behaviour & Evolution, Newcastle University.

The deadline for abstract submission is January 5th, 2011. Please encourage your friends, students, and colleagues to participate.

For additional information:

http://neepsociety.com/wp-contentuploads201002neeps-2010-program-pdf/

AEPS: Applied Evolutionary Psychology Society Symposium

The Evolutionary Studies Program and Evolutionary Psychology Lab of SUNY New Paltz, along with the Applied Evolutionary Psychology Society, present a symposium/panel discussion on Applied Evolutionary Psychology, the many clinical and social applications of evolutionary perspectives of the human mind.

As the name implies, the event will focus on real world applications of evolutionary psychology, with a special emphasis on clinical psychology. Among the speakers will be practicing clinical psychologists and applied EP proponents Nicholas Armenti, from the University of Medicine and Dentistry of New Jersey and the Albert C. Wagner Correctional Youth Facility, and Nando Pelusi, a psychotherapist and contributor to Psychology Today. The keynote speaker will be Jerome Wakefield from NYU, whose concept of "harmful dysfunction" has been a cornerstone of the evolutionary classification of mental disorders.

Date: March 7th, 2011 4:30-7:30pm SUNY New Paltz (location TBA)

Binghamton EvoS Seminar: Success as Usual by Mary Finn

This fall, Binghamton hosted the EvoS Seminar series for the seventh time. A biannual event, the EvoS seminar features ten distinguished speakers who come to the Binghamton campus to lecture on a variety of interdisciplinary subjects relating to the theory of evolution. Far from a strictly academic event, the seminars are open to undergraduates, graduates, and the public alike. After each lecture a dinner is held, with free food and further discussion between the speaker and audience.

This semester saw lectures on economics, computer science, anthropology, and even a "multimedia solo performance inspired by the works of Charles Darwin" called "Schismism."

While I missed that particular performance, I was fortunate enough to catch Jay Belsky's lecture, "Childhood Experiences and the Development of Reproductive Strategies: an Evolutionary Theory of Socialization Revisited." Belsky delivered an entertaining and highly informative lecture to a packed audience. The discussion session afterwards provided a free dinner, as well as the opportunity for students to converse and ask questions to a prominent researcher.

Each semester an academic course is offered as a companion to the seminar series. Students must read articles prior to the lectures, as well as writing detailed commentary regarding each seminar. The course must be completed twice in order to achieve the EvoS minor, undoubtedly ensuring EvoS students have a broad and varied base of knowledge about many evolutionary topics.

Were you unable to make the EvoS seminar series this year? Don't worry, not only will there be ten more wide-ranging and fascinating lectures next semester, but the folks at Binghamton are very good at putting up links to old lectures, so even if you missed the real thing you can watch a video from the comfort of your home. Check out the website at: http://evolution.binghamton.edu/evos/seminars/ for more information.

New Paltz EvoS Seminar Series Returns

New Paltz will see the return of its annual EvoS seminar series on February 7, 2011. The series will kick off with a special presentation of information about the progress of EvoS New Paltz, including presentations of NSF-funded EvoS research and proposals for new EvoS courses.

On selected Mondays, there will be a lecture at 5:30pm on a variety of different evolutionary topics. As usual, these seminars are open to both the academic community and the general public. More information can be found at the New Paltz EvoS website: http://www.newpaltz.edu/evos/seminar.html

Scheduled Speakers:

February 21st

Sex Différences in Hero Creation: A Sociobiological Analysis of Children's Fantasy Literature Victoria Ingalls, Ph.D.

February 28th

Evolution and Women's Health Chris Reiber, Ph.D.

March 14th

The Demise of the Dinosaurs: A Biotic Crisis or a Biotic Revenge? Gordon Gallup, Ph.D.

March 28th

Exploiting Evolution at the Molecular Level Jeff Reinking, Ph.D.

April 4th

SEEKING and PLAYING: Affective Infrastructures and the Evolutionary Function of Sport Leslie Heywood, Ph.D.

April 11th

How Natural Selection Produced Humans- How Humans Produce Knowledge Paul Bingham, Ph.D.

April 25th

Eels, and Naming Nature James Prosek

AN INTERVIEW WITH DR. TOM NOLEN



Tom Nolen is a professor and chair of the biology department at SUNY New Paltz.

Could you tell us a little about your interest in evolution? How did it start? How has it shaped your research throughout your career?

I'm a neuroethologist – which really means that I study (neural) mechanisms of adaptive behavior. My background is in comparative physiology and that means I inherently take an evolutionary approach. I got interested in neurophysiology as a sophomore in college when I took Invertebrate Zoology and then Neurophysiology. But my interest in evolutionary biology goes all the way back to my childhood in Texas, where I collected fossils in my back yard. I read most anything on Biology and Geology and although I found some dinosaur fossils, I was more interested in marine invertebrates, having found ammonites and crinoids, as well as tons – literally tons – of Cretaceous heart urchins (*Epiaster whitei*) in the stream bed that ran behind our house. My choice of an undergraduate institution was based on whether it had a marine lab.

Do you think your extensive education in marine biology has given you a different perspective on evolution than some of your colleagues in other disciplines?

I chose to major in Aquatic Biology as an undergraduate largely because it allowed me to take a variety of comparative courses, and because it was fun (and, actually, because it was the most rigorous major track). [OK, the difference between Marine Biology and Oceanography is that an Oceanographer gets to stay dry – on the ship – while the Marine Biologist usually gets cold and wet, constantly hopping in and out of their small boats, (if they are lucky enough to have a boat). I remember getting wet all the time even when I wasn't SCUBA diving.] In terms of guiding my future career, I believe an appreciation for marine organisms has been crucial to approaching the larger questions in Neuroethology, not just in marine organisms. That is because the Animal phyla originated in the oceans: the deepest part of our evolutionary history is rooted there; and, I'm a comparative biologist. A common theme in my research is predator-prey interactions and anti-predator mechanisms. Early on, a main interest was sensory physiology: I studied chemoreception in crabs as an undergraduate (and that became the basis of a Master's Thesis); and although I ultimately did my PhD thesis on ultrasonic hearing in crickets (flying crickets hear the ultrasonic biosonar of bats and avoid becoming their prey), it was because I was interested in the evolution of anti-predator sensory adaptations. I keep coming back to a variety of marine organisms to explore these themes.

Why do you think it's so important to teach about evolution, especially at the college level?

I believe, as Theodosius Dobzhansky (1973) said: "Nothing in Biology makes sense except in light of evolution." At least for Biologists, a solid understanding of Evolutionary principles is part of a complete, modern education in Biology. Too many students BARELY understand or remember the little survey of evolutionary theory they get in General Biology. If Biology students barely understand it, what of the average college graduate (or high school graduate)? These are the citizens of the world who will have to decide how we shepherd our planet through the next 60 years. We face huge challenges and ignorance of the basic cause of our existence is untenable.

That is not to say that everything has an evolutionary explanation (even in biology). Still, I would hope that college graduates would be able to understand enough of the basic principles of evolutionary theory to critically evaluate explanations others propose for biological questions.

Finally, I am not saying that evolutionary ideas apply only to Biology – selection theory is used in economics, mathematics, computer science and engineering, and it has been used to create music. None of these applications are of a biological nature, but the concept of natural selection will apply to a variety of systems of self replicating entities. It is useful. Everyone should have it in their toolkit. What has your experience being a founding member of the EvoS consortium been like? How do you think the EvoS program is doing at New Paltz? How about the EvoS consortium in general?

It has been fun and gratifying and I think we are progressing nicely as more courses are developed for the Minor. We have a number of contract majors, which suggests that there is interest in a formal Major. It has been satisfying to see the growth (development) of new EvoS programs around the country as a result of the efforts of the consortium.

What do you think the most important goals of the EvoS consortium are?

I'm not sure what the Consortium's goals are or should be, but I know one of my goals has always been to insist on researchers formulating good, testable hypotheses and then testing them. There is too much "Truthiness" in the application of evolutionary theory right now and one thing we need to be vigilant about is testing our hypotheses. That means testing multiple hypotheses and having an appropriate Null hypothesis. This goes both ways: Whether you are testing an adaptive hypothesis OR a non-adaptive hypothesis (e.g., cultural influence on the development of some behavior).

Are there any speakers/colleagues/researchers whose current work you find inventive or inspiring? Anyone we should be taking note of?

Sean B. Carroll (the Evolutionary-Developmental Biologist, not the Physicist). It would be great to highlight modern Evo-Devo some spring as part of our EvoS Seminar series.

What do you think have been the most significant changes in evolutionary theory since the days of Darwin?

Soooo much has been discovered since Darwin. Most important is classical (Mendelian) genetics as well as population genetics. Many evolutionary Biologists (too numerous to mention) have hammered out many of the rough edges of Darwin's (and Wallace's) original ideas and have provided a solid theoretical (mathematicsbased) foundation. But the most revolutionary discoveries are likely to come from what is called Evo-Devo (Evolutionary Developmental Biology, or more accurately, the study of the evolution of developmental mechanisms). The future of elucidating the deep history of life – fossilized in living organisms' genomes – is in Evo-Devo. What do you feel is the most difficult part about teaching evolution?

Darwin. Or rather the legacy of Darwin. What I mean is that too often students' only knowledge of evolution are the words: "Darwin" and "survival of the fittest." Too often the misconception is that Darwin = Evolutionary Theory. But, in fact, what Darwin knew was tiny compared to what we now know. Not to diminish Darwin's seminal contribution, but so much has happened since then. So, the main problem is dealing with students who believe they know it all (and have heard it all) when in fact they know little of substance. The task is to skirt Darwin and jump into the last 150 years of Evolutionary Theory, which is more than trite phrases – it is hard work.

What's the most controversial aspect of evolutionary theory?

Ironically, in my experience (here, and when I was a postdoc and taught a non-majors course at Yale) it is not the creationists that have caused problems, but faculty in other parts of the Academic Archipelago that object to any argument, discussion (or facts) that suggest that humans are importantly impacted by our evolutionary past. Some of the tactics of the naysayers are perfectly analogous to those used by creationists (e.g., see *Abusing Science: The Case Against Creationism* by Philip Kitcher, 1982) and represent the worst of the anti-intellectualism rampant at campuses around the country. Ironic indeed. In any case, science is a self correcting endeavor and I believe eventually, the success of a theory will silence those opposed to it on purely ideological grounds. (And if it is a poor theory, factiness will lay it to rest.)

What's your favorite animal and why?

Whatever animal I'm working with at the moment. OK, insect auditory systems are especially interesting because of how they evolved (many now used for communication probably evolved first in response to selection by predators). But presently I'm working with the control of jellyfish swimping; we want to account for how a supposedly "simple" nervous system can produce quite adaptive behavior. In the Cubomedusae (the sea wasps), we ask "how they are able to pursue prey and avoid obstacles?" According to dogma, they should be too simple to do that. How did a simple "nerve net" of the early cnidarian ancestor evolve the pursuit abilities seen in these visual predators? A combination of neuroetholgical, Evo-Devo and mathematical modeling approaches will be needed to answer that question.

SPOTLIGHT ON AN EVOS STUDENT: MARK OSMAN



MARK OSMAN IS AN UNDERGRADUATE STUDENT AT THE UNIVERSITY OF KANSAS. HE IS PURSUING A BACHELOR'S OF ARTS IN COGNITIVE SCIENCE WITH A MINOR IN SOCIAL AND BEHAVIORAL SCIENCES METHODOLOGY. HE WORKS UNDER THE DIRECTION OF DR. PAT HAWLEY.

[EN=EvoS Newsletter; MO: Mark Osman].

EN: What has been your favorite course in school so far?

MO: My favorite evolutionary course has been Evolutionary Psychology with Dr. Patricia Hawley. The course covered a broad range of evolutionary topics and provided me with a powerful explanatory lens through which to better understand psychology and human behavior.

EN: What benefits do you think you'll gain by studying evolutionary topics?

MO: The study of evolution provides me with a theoretical framework that can be fruitfully applied across varied disciplines. When correctly applied, it teaches one to focus on a behavior's function rather than its form, and leads to more informed explanations of why such a behavior takes place.

EN: Please give us a summary of your most recent research experience.

MO: I have recently assisted Dr. Hawley in the development of a survey designed to assess the structure of beliefs about and attitudes towards evolutionary theory and its application, with the ultimate goal of providing educators with a tool to assess and improve the efficacy of evolution education (Hawley et al. 2011; in press). Building off of this work, my present research investigates the degree to which differences in evolutionary knowledge can be explained by religious and political ideological commitments. The Evolution Attitudes and Literacy Survey (EALS) was administered to 371 undergraduates enrolled in either a Child Psychology course or a Social Psychology course. Using these data, I examined the relationships of religiosity and conservative self-identity to knowledge of evolutionary theory. As hypothesized, religiosity and conservative self-identity appear to have negative associations to evolutionary knowledge. I then performed a mediation analysis, which found that conservative self-identity completely mediates the relationship between religiosity and conservative self-identity. This suggests that all of the variance in individuals' knowledge of evolution as predicted by religiosity can be explained by conservative selfidentity. Currently, I'm analyzing data from a sample that completed the survey at multiple time points. I am in the process of conducting a longitudinal mediation analysis to confirm the invariance of constructs and better establish the mediation.

"...[evolution] provides a constant and consistent thread that ties together the infinite complexities of human behavior." -Mark Osman,

University of Kansas

EN: How was your research influenced by evolutionary theory?

MO: In this case my research is concerned with students' understanding of evolutionary theory. The research will be of particular relevance to science educators. Ideological commitments may serve as an obstacle to the understanding and acceptance of evolutionary theory. An understanding of the associations between these ideological commitments will inform research that seeks to improve the efficacy of evolution education by providing educators with a better understanding of individual factors that influence learning outcomes.

MO: Yes, it has changed how I think about the world in every way. It gives me a persistently inquisitive mind in all aspects of my life. I am constantly looking at the world through an evolutionary lens and questioning the reasoning behind specific types of behavior. Despite what some think, evolution has a lot to do with how we behave the way we do. I personally think evolutionary theory is one of the most important things a person can learn—it can truly change your life.

EN: Has evolutionary theory changed how you think about the world?

SPOTLIGHT ON AN EVOS STUDENT: LUKE MCCUNE



LUKE MCCUNE IS AN UNDERGRADUATE SENIOR AT THE UNIVERSITY OF KANSAS IN LAWERENCE, KANSAS. HE IS MAJORING IN PSYCHOLOGY, WITH MINORS IN ANTHROPOLOGY AND BEHAVIORAL SCIENCE METHODOLOGY.

[EN=EvoS Newletter; LM: Luke McCune].

EN: What have been your favorite evolutionary courses in school so far?

LM: Evolutionary Psychology, an undergraduatelevel course taught by Dr. Patricia Hawley, was the course that sparked my interest in applying evolution to human behavior and endeavors. Before that time, evolution had always appeared to me as a behindthe-scenes force, with little implications for day-today living. The material presented during the course, which covered a much wider array of evolutionary topics than the title of the course may lead one to believe, broke open my narrow view of evolution and illustrated the explanatory power of evolutionary theory.

EN: What benefit(s) do you think you'll gain by studying evolutionary topics?

LM: By studying psychology in an evolutionary light, I believe that it allows researchers to go beyond the obvious, proximal causes of behavior, to the deep, distal causes. In other words, while previous psychological disciplines have done well to explain the "what's" and "how's" of behavior, evolution provides that best answers for the "why's."

"In other words, while previous psychological disciplines have done well to explain the "what's" and "how's" of behavior, evolution provides that best answers for the "why's."

> -Luke McCune, University of Kansas

EN: Could you describe some of your recent research for us?

LM: After co-authoring the Evolutionary Attitudes and Literacy Survey (EALS) with Dr. Hawley, I have begun work on a project with her to investigate the relationship between Resource Control Theory (RCT) strategies (i.e., prosocial control and coercive control) and the Big Five Personality traits. Using survey responses from over 600 University of Kansas undergraduates, we expect the results of our confirmatory factor analysis to show that Agreeableness, Conscientiousness, Extraversion, and Neuroticism positively associate with prosocial control, while Extraversion will also positively associate with coercive control. If these hypotheses hold, we would be able to demonstrate that highly Extraverted individuals should fit into our highresource-control group (known as the "bistrategics"), and may therefore be more evolutionarily "fit" (at least within our population's current environmental context).

EN: How did evolutionary theory inform this research?

LM: Due to the fact that resources (informational, social, and material) all have value in increasing one's

attractiveness and mating success, both Dr. Hawley and I agree that RCT strategies inherently have evolutionary value. Therefore, we see behaviors (in this case, personality traits) that increase one's use of certain RCT strategies as improving evolutionary success. Additionally, previous work by prominent evolutionary personality psychologists like David Buss and Daniel Nettle, and important work in anthropological genetics have all informed the theory behind this upcoming paper.

EN: Has evolutionary theory changed how you think about the world? How so?

LM: Evolutionary theory has provided me with an ordered, logical lens with which to view the world. Where once I searched through the seeming chaos in vain for the explanations of behavior, now I merely ask a single, simple question: How might this behavior be evolutionarily adaptive? The answers are sometimes chilling, sometimes comforting, but they are always interesting, rational, and, in my opinion, the best explanations we have for human behavior.



SPOTLIGHT ON EVOS FACULTY: PATRICIA HAWLEY



PAT HAWLEY IS A RESEARCHER AND PROFESSOR IN THE PSYCHOLOGY DEPARTMENT AT THE UNIVERSITY OF KANSAS. HER CURRENT RESEARCH LOOKS AT MORALITY, AGGRESSION, AND REGULATION IN A DEVELOPMENTAL CONTEXT.

[EN=EvoS Newletter, PH= PAT HAWLEY].

EN: How far along is your school's EvoS program in terms of being implemented in the curriculum?

PH: Morula: That is, post conception but pre-implantation.

EN: What do you think are the primary benefits for students from being part of an EvoS program?

PH: It teaches them that scientific thinking (inference, logic, coherency, empiricism) is not just for scientists, and that the mysteries of life are at their finger tips the minute they walk outside and open their eyes.

EN: What would you say are the primary benefits to faculty from being part of an EvoS program?

PH: Keeping fresh, continued intellectual growth, and sustained feeling of amazement. For example, just the other day I popped upstairs to visit a physical anthropology colleague for the first time. He showed me his collection of ancient skulls and jaws. I was awestruck! There was an infant skull with predatory tooth marks pierced through it. It is one thing to read "humans faced many ancient predators blah, blah", but it's quite another to hold the skull of

one of its tiniest victims in your hands. After you do that, it becomes much more real.

EN: What is your research interest and how does it relate to evolution?

PH: I study power in human development, and how it relates to aggression, morality, and social skills. The original insight into my model came from a stable captive group of female Asian elephants, though at present I speak mostly to child developmentalists. The ethos in the field of child development is (and should be) focused on improving the lives of children in ways such that they enjoy 'positive developmental outcomes' and as such is very nearly the raison d'etre of the field. This position unavoidably leads one to think about optimal human potential. It is then a very short step to think of a life virtuously led. Aggression, for example, is a deviation from this path, and child developmentalists look to possible environmental 'pathogens' that cause this derailment. Evolutionists typically have a very different underlying philosophy; rather than thinking in terms of 'good' (or 'evil') we think in terms of effectiveness, costs, and benefits. Of course, this amoral (not immoral) stance has chafed many in the social sciences for over a century who even still accuse of being all sorts of "ists" (e.g., sexists, racists, genetic determinists, etc).

EN: Please provide a short summary of a recent research finding of yours that is related to evolutionary theory.

PH: It is through evolutionary lenses that one can see (and empirically show) that aggression is not nearly as 'psychopathological' as it has been made out to be. That is, many highly aggressive individuals not only are not ostracized by the group, but rather are held up as an example of success in that they attain a good deal of power. Moreover, prosociality can be a highly effective means to personal goal attainment. Individuals who manage to balance both are highly effective and social central. Though they can be explained with the right theoretical perspective, they cannot be easily characterized as either 'good' or 'evil'. Indeed, such characterizations risk impairing scientific vision in any case. So too has been the case about sexual fantasy in women (and men) about forceful submission. The assumption that it is a 'symptom' indicating some underlying 'sickness' had not been questioned for a century. Not even by feminist scholars. Shame on them!

THE EVOS ILLUMINATE

EN: What is your favorite course to teach? Why?

PH: Statistics. Because a) it is inherently fun, and b) it allows you to teach the logic of scientific thinking without irking students with fundamentalist leanings. Statistics as a field really is for everybody, and if taught right, can aid students with clear, critical thinking that is essentially content free.

EN: How does evolutionary theory factor into your teaching experience?

PH: I only 'teach evolution' in my Evolutionary Psychology course. Nonetheless, the paradigm offers alternative ways of thinking about social policy for children, where such policy may not be scientifically sound, but rather embodies prevailing wishful thinking. For example, we wish we can make youth non-sexual beings, and we wish that without 'time-wasting activities' such as play, children can learn enough information to pass standardized tests (e.g.,

abstinence only education, NCLB). With a little scaffolding, most college student quickly 'get' the problems associated with this framework, and start to think critically for themselves.

EN: What would life be like without evolutionary theory?

PH: "Life" would make little sense.

EN: James Lipton always ends Inside the Actor's Studio with the question "If Heaven exists, what would you like to hear God say when you arrive at the Pearly Gates?" If Heaven exists, what would you like to ask Darwin when you arrive at the Pearly Gates?

PH: "Could I please buy you a drink? Let's have your good friend, George Williams, come too..."

Evolution: Education and Outreach is publishing a special issue on the EvoS Consortium in early 2011. The issue is being guest edited by Rosemarie Sokol Chang, Glenn Geher, Jennifer Waldo, and David Sloan Wilson. Topics of the forthcoming articles include an evolutionary approach to education, evolutionary psychology's relationship to EvoS, how EvoS can compliment a premedical education, and classroom exercises centered on tree thinking, Tingbergen's four questions, and an artistic performance of evolution. Look for the issue next year at

(http://www.springer.com/life+sciences/evolutionary+%26+developmental+ biology/journal/12052)

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EvoS Spring 2011 Event Calendar
University of Alabama ALLELE Speakers: January 20: Mary Schweitzer (paleontologist, North Carolina State U) February 24: Christopher diCarlo (philosopher of science & ethics, http://cdicarlo.com/) March 24: Douglas Futuyma (evolutionary biologist, University of Michigan)
April 28: Brad Sagarin (evolutionary psychologist, Arizona State University) New Paltz EvoS Seminar Series: Selected Mondays, 5:30pm, starting February 7th
Binghamton EvoS Spring Seminar Series: Mondays at 5 pm, Science 1 Room 149.
AEPS Symposium: March 7 th , 4:30-7:30pm SUNY New Paltz (location TBA)
NEEPS 2011: April 1-3, 2011 at Binghamton

This newsletter was written by Mary Finn, mostly, with help from Rosemarie Sokol Chang and Daniel Glass. Special thanks to Tom Nolen, Pat Hawley, Luke McCue and Mark Osman for being featured. Please send any comments to <u>evostudies@gmail.com</u>.