



THE PALEONTOLOGICAL SOCIETY
EMAIL DIGEST
April 20, 2010

Greetings to you all! This month's installment of the PS Email Digest highlights our Student Grant Award winners. As you know, we recently completed our **Centennial Campaign** to fund these grants and are pleased to announce the 2010 recipients. In many ways, these students are the future of our discipline and our Society, so we are fortunate to have the many generous contributions to support their (and our) future! Best wishes to all the students in their research endeavors and thank you to all who donated to the Centennial Campaign.

--Lisa Park (PS Secretary)

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PS STUDENT RESEARCH AWARDS

The PS Student Research Award Committee received 84 proposals this year and were able to fund 29 applicants (34%). Applicants included 53 PhD students, 25 MS students, and 6 undergraduates. The 29 awardees included 20 PhD students (38% funding rate), 7 MS students (28% funding rate), and 2 undergraduates (33% funding rate). As in the past, proposals for invertebrate research (including trace fossils and microbes; $n = 58$) outweighed those of vertebrates ($n = 26$) or plants ($n = 1$). Applicants were about equally balanced between male ($n = 41$; funding rate = 53%) and female ($n = 43$; funding rate = 48%). A majority of applicants were from U.S. institutions ($n = 77$),



although the percentage of non-U.S. applicants was higher this year (8%) than last (4%).

NAME	PROJECT TITLE	INSTITUTION	AWARD NAME
Hilary Christensen	The Mammalian Transition to Herbivory in the early Cenozoic	The University of Chicago	Mid-America Paleontology Society (MAPS) Outstanding Student Research
Jenna Judge	The effect of past atmospheric oxygen levels on the evolution of phenotypic plasticity in gastropod growth and metabolism	University of California Berkeley	Mid-America Paleontology Society (MAPS) Outstanding Student Research
G. Alex Janevski	Resolving crinoid phylogeny across the Permian/Triassic extinction event	University of Michigan	Mid-America Paleontology Society (MAPS) Outstanding Student Research
Adelina E. Prentice	Investigating Pliocene warm-water upwelling ("permanant El Niño condition") in littoral communities of Peru, southern California, and Baja California, Mexico	University of Washington	Robert J. Stanton & James R. Dodd
Matt Jarrett	The Lilliput Effect: Evolution During a Crisis	University of South Florida	Ellis L. Yochelson
Zhenzhu Wan	Carbon Isotopic Composition and Water-Use Efficiency of Early Devonian to Early Carboniferous Land Plants	University of Cincinnati	James M. & Thomas J. M. Schopf
Tristan J. Kloss	Adaptive strategies of Cambrian benthic suspension feeders: A sticky situation	UW-Milwaukee	Allison R. "Pete Palmer
David Marjanović	Phylogeny of the limbed vertebrates with special emphasis on the origins of Lissamphibia and Testudinata	Université Pierre et Marie Curie (Paris, France) and University of Vienna (Austria)	Kenneth E. & Annie Caster
Chelsea Korpanty	Comparative Study of Pleistocene and Modern Reefs of Curaçao: The Role of Disturbance Frequency on Reef Development	Cornell College	N. Gary Lane
Ashley A Dineen	Regional paleoecology of near-field marine faunas during the late Paleozoic Ice Age	University of Wisconsin - Milwaukee	N. Gary Lane
Brian D. Rankin	The phylogenetic relationships of the Didelphodonta (Mammalia; Eutheria): implications for the origination and diversification of living, higher-level mammals	University of Calgary	N. Gary Lane
Andrew Haveles	Resource Partitioning of Pliocene and Pleistocene Small Mammals from the Great Plains, U.S.	University of Minnesota	Kenneth E. & Annie Caster
Stephen Brusatte	Tracking the Earliest Dinosaurs: Fieldwork in the Triassic of Poland	Columbia University	Kenneth E. & Annie Caster
Mara Brady	Evaluating the controls on macroinvertebrate skeletal concentrations in carbonate sedimentary records from cratonic interiors versus continental margins	The University of Chicago	Arthur J. Boucot
Tanya del Valle	Can the past be used to predict the future? : Comparative growth rates of the reefbuilding coral <i>Montastraea</i> during a Pleistocene Interglacial Warming Period and living <i>Montastraea</i> under global warming	University of Cincinnati	Richard Osgood
Max Christie	Does ecological change scale with percent extinction? Quantifying the difference between taxonomic loss and functional ecology	The University of Georgia	Steven M. Stanley



Mindi Summers	Ancient DNA Extraction from Sediments: Training in Techniques and Study of Community Changes over the Past Glacial	Scripps Institution of Oceanography	Steven Jay Gould
Carrie L. Tyler	A Test of the Validity of Repair Scars as a Proxy for Predation Intensity	Virginia Polytechnic Institute & State University	Ellis L. Yochelson
Ryan Felice	New Cretaceous Turtle Fauna from Malawi and Tanzania	Ohio University	Kenneth E. & Annie Caster
Aubrey Shirk	Paleoecology of Late Pleistocene Megafauna: Stable Isotope Reconstruction of Climate and Response	University of Nevada, Las Vegas	Kenneth E. & Annie Caster
Felix G. Marx	Morphological diversity and evolution of modern whales (Neoceti)	University of Otago	Steven Jay Gould
Michael Meyer	Assessing the Implications of Regional Scale Redox Fluctuation across the Ediacaran-Cambrian Boundary on the Yangtze Platform, China.	Virginia Polytechnic and State University	Harry B. Whittington
Jacalyn M. Wittmer	Spatial distribution patterns of indirect and direct developing gastropods in modern and Pleistocene environments of San Salvador Island, Bahamas	Virginia Polytechnical Institute and State University	Ellis L. Yochelson
Frank Forcino	What can high-resolution geochemical proxies for temperature and seasonality reveal about community variation in the late Paleozoic?	The University of Alberta	G. Arthur Cooper
Elizabeth Erickson	Disturbance Maintenance Diversity of Pleistocene Fossil Reef Assemblages from Curaçao Island	Cornell College	Allison R. "Pete" Palmer
Sahale Casebolt	Determining phylogenetically informative microstructural characters for the scleractinian coral genus Mycetophyllia	University of Iowa	Rodney M. Feldmann
Kwasi Gilbert	Tertiary Physeterids (Sperm Whales) From the Atlantic Coastal Plain: An Investigation of Life History and Ecology	Syracuse University	Ellis L. Yochelson
Joseph L. Reeve	Isotope Variation in Gerbil Molars as a Tool in Paleoenvironmental Reconstruction	Sam Houston State University	Steven Jay Gould
Pedro Manuel Monarrez	Examining How Communities Reassemble After The End-Permian Mass Extinction	California State University, Fullerton	Richard K. Bambach

The Society wishes to thank the 2010 committee--Nicole Bonuso, Andrew Bush, Jonathan Payne, David Polly, Matthew Powell (Chair), Jocelyn Sessa, and David Sunderlin, for their service on this important committee!

Congratulations to all student research awardees!!

DETELO WORKSHOP

The Paleontological Society in conjunction with other paleontological groups will convene a workshop to develop the concept of **Deep Time Earth-Life Observatories (DETELOs)**, a new concept that emerged from a recent community workshop on Future Research Directions in Paleontology (FRDP). This workshop will include 22 participants, and is scheduled for 23-25 April, 2010 at the Department of Paleobiology of the National Museum of Natural History (Smithsonian Institution).

Building off the success of the Long-Term Ecological Research Network (LTER), and similar efforts, **Deep Time Earth-Life Observatories (DETELOs)** are proposed as a



means by which to allow focused efforts by teams of scientists using a **systems based approach**, to address questions related to how life has evolved and persisted on Earth.

These **DETELOs** would involve integrated teams of perhaps 10-20 paleontologists, geochemists, stratigraphers, geochronologists, paleoclimatologists, modelers and other geoscientists focusing on questions of sufficient interest as to justify such an effort. Each observatory would last for 5-10 years (an initial 5 year grant followed by a possible renewal). Projects would need to integrate existing data sets, develop quantitative, process-based models, as well as plan coordinated field work and analyses. DETELOs would provide significant opportunities for junior faculty and post-doctoral scholars and include joint training of graduate students.

The **DETELO** Workshop will provide a community-based platform to develop the concept of **Deep Time Earth-Life Observatories** as an initiative for the paleontological and the broader soft-rock geological community. In this way the Paleontological Society plans to lead the way towards the future of paleontological research.

The results of the workshop will be discussed with the broader paleontological community at Geological Society of America Annual Meetings in Denver (November, 2010) and Minneapolis (October, 2011). The final product of this effort will be a document of 10-20 pages.

NESCENT OPPORTUNITIES

Postdoctoral Fellowships in Evolutionary Biology and Related Fields

We are now accepting proposals for Postdoctoral Fellowships at The National Evolutionary Synthesis Center (NESCent). We are looking to fund innovative approaches to outstanding problems in evolutionary biology. Proposals are due December 1. For more information, please see our website at <https://www.nescent.org/science/proposals.php>.

Call for Proposals—Sabbatical Scholars and Collaborative Working Groups

Proposals for Sabbaticals and for collaborative working groups (Working Groups and Catalysis Meetings) are now being accepted at The National Evolutionary Synthesis Center (NESCent). We are looking to fund innovative approaches to outstanding problems in evolutionary biology. In particular, proposals that have a clear interdisciplinary focus, or involve evolutionary concepts in non-traditional disciplines, are strongly encouraged, as are proposals that demonstrate international participation and a mix of senior and emerging researchers, including graduate students. Proposals for Working Groups and Catalysis Meetings are accepted twice a year, with deadlines on June 10 and December 1. Proposals for Sabbaticals may be one semester to a full year (deadlines June 10 and December 1) or they may be for short-term visits (2 weeks to 3 months; deadlines on January 1, April 1, July 1 and September 1). NESCent is also now seeking to include graduate traineeship to our portfolio by offering one-semester fellowships for graduate students to pursue research either with a NESCent sabbatical



scholar or with a NESCent Working Group. For more information, please see our website at <https://www.nescent.org/science/proposals.php>.

UPCOMING GSA SECTION MEETINGS

Rocky Mountain (21-23 April, Rapid City, South Dakota)
<http://www.geosociety.org/sectdiv/rockymtn/2010mtg/>

Cordilleran joint with Pacific Section, AAPG (27-29 May, Anaheim, California)
<http://www.geosociety.org/sectdiv/cord/2010mtg/>

NEW COLLECTING POLICIES ON FEDERAL LAND

Summer is around the corner and many people are gearing up for their field season. For those who do not know about the new collecting policies on Federal Lands, you might want to familiarize yourself with the new rules.

From the BLM Website--

“On March 30, 2009, the [Paleontological Resources Preservation Act \(PRPA\)](#) became law when President Barack Obama signed the Omnibus Public Land Management Act (OPLMA) of 2009, Public Law 111-011. P.L. 111-011, Title VI, Subtitle D on Paleontological Resources Preservation (OPLMA-PRP) requires the Secretaries of the Interior and Agriculture to manage and protect paleontological resources on Federal land using scientific principles and expertise.

The OPLMA-PRP does not change the Bureau of Land Management’s (BLM’s) basic policy for allowing casual collecting of reasonable amounts of common invertebrate and plant fossils from public lands for personal use without a permit. Nor does the OPLMA-PRP change the prohibition on bartering or selling common invertebrate and plant fossils.

Consistent with existing policy, the OPLMA-PRP includes provisions allowing for casual or hobby collecting of common invertebrate and plant fossils without a permit on public lands under certain conditions.

Casual collecting in Section 6301(1) of OPLMA-PRP means:

“... the collecting of a reasonable amount of common invertebrate and plant paleontological resources for non-commercial personal use, either by surface collection or the use of non-powered hand tools resulting in only negligible disturbance to the Earth’s surface and other resources.”



The OPLMA-PRP requires that the Secretary develop regulations implementing the legislation and will include defining certain commonly used terms.

In addition, the OPLMA-PRP does not change BLM's requirement for issuance of a paleontological resources use permit for the collection of vertebrate and other paleontological resources of paleontological interest by qualified researchers.

On April 24, 2009, the BLM issued an instruction memorandum, [IM 2009-113](#), on Casual Collecting of Common Invertebrate and Plant Paleontological Resources under the Paleontological Resources Preservation Act of 2009 which provides guidelines on casual collecting under the OPLMA-PRP." (BLM Website)

These new regulations are designed to protect paleontological resources and will hopefully allow for more financial resources to be garnered to support paleontology in the parks. The NPS is reportedly going to request funding increases in their 2012 budget that might allow for a dozen or so new paleontologist positions! This has been the case for archaeologists since the passage of the Archeological Resources Preservation Act (ARPA) in 1979. For further information about these new regulations, please contact someone at the park service or consult the BLM website at: http://www.blm.gov/wo/st/en/prog/more/CRM/paleontology/fossil_collecting.html

As always, if you do not wish to receive these monthly updates, please email the PS Secretary, Lisa Park at lepark@uakron.edu and you will be removed from the list. If you would like to have something posted on the digest, please contact the Secretary. Note that suitability of submissions will be evaluated before posting.

Lisa E. Park
Secretary, The Paleontological Society