

NAPC schedule of events (Feb. 15 – 18)

The North American Paleontological Congress is being hosted by the Florida Museum of Natural History, University of Florida in Gainesville, FL, USA, from February 15 – 18, 2014. The conference takes place at the Hilton Convention Center, 1714 SW 34th St (the junction of 34th St and Hull Road). With over 400 presentations, it is quite a large paleontological meeting!

Below are some selected presentations concerning Panama, the Caribbean/New World Tropics, and/or PIRE individuals, listed in chronological order. Presenters affiliated with PCP-PIRE are listed with an *. There are 36 talks and posters on a diverse array of paleontological topics. The majority of the presentations occur on the first two days of the conference, Saturday and Sunday (Feb. 15-16). Some of the presenters have also written a brief synopsis of the presentation, listed after the schedule in alphabetical order by first author. More details about the presentations, including all associated authors, as well as presentations on a myriad of other topics, can be found at the link below.

http://www.flmnh.ufl.edu/files/4913/8739/1345/NAPCProgram_12-18.pdf

On-site registration for the conference is available. More information can be found here:

<http://www.flmnh.ufl.edu/index.php/napc/home/>

SATURDAY, FEB. 15			
Time	Room	Title	Presenter
1:45	Dogwood	EVOLUTION OF PLIO-PLEISTOCENE REEF MARGINS IN THE CARIBBEAN: RESULTS OF THE DOMINICAN REPUBLIC DRILLING PROJECT (DRDP)	Viviana Díaz
2:00	Ballroom C	THE FIRST FOSSIL RECORD OF THE GENUS <i>ZAMIA</i> L. (ZAMIACEAE, CYCADALES) EVIDENCED BY EPIDERMAL STRUCTURE FROM THE EOCENE OF PANAMA AND ITS COMPARISON WITH MODERN SPECIES OF <i>ZAMIA</i> .	Boglárka Erdei
2:00	Azalea	QUANTIFYING UPWELLING AND FRESHENING IN NEARSHORE TROPICAL AMERICAN ENVIRONMENTS USING MODERN GASTROPOD SHELLS – STABLE ISOTOPIC SUCCESSES AND TRACE ELEMENT COMPLEXITIES	Ethan L. Grossman
2:15	Azalea	NEW SCLEROCRONOLOGICAL INSIGHTS INTO HETEROCHRONIC EVOLUTION OF TROPICAL AMERICAN CORBULIDS	David H. Goodwin
2:15	Dogwood	DEEP REEFS FROM THE DOMINICAN REPUBLIC	James S. Klaus
2:30	Ballroom C	GLOWING SEASHELLS: ULTRAVIOLET LIGHT REVEALS LARGE DIVERSITY OF PRESERVED COLORATION PATTERNS IN NEOGENE <i>CONUS</i> FOSSILS FROM THE DOMINICAN REPUBLIC	Jonathan R. Hendricks
2:30	Dogwood	THE EARLY PALEOGENE REEF GAP IN THE CARIBBEAN	Thomas A. Stemann
3:15	Ballroom C	THE EARLY EVOLUTION OF FROG CRABS (DECAPODA: BRACHYURA) AND NEW FINDINGS FROM THE CRETACEOUS OF TROPICAL AMERICA	Javier Luque*
3:15	Dogwood	LATE NEOGENE ENVIRONMENTAL CHANGE AND FAUNAL OVERTURN IN THE CARIBBEAN: REVELATIONS USING	Ethan L. Grossman

		GASTROPOD STABLE-ISOTOPE PROFILES TO QUANTIFY SEASONAL UPWELLING AND FRESHENING IN COASTAL WATERS	
3:45	Ballroom C	FOSSIL PYGMY SPERM WHALES (ODONTOCETI; PHYSETEROIDEA; KOGIIDAE) FROM THE LATE MIOCENE OF PANAMA AND EARLY PLIOCENE OF FLORIDA	Jorge Velez-Juarbe*
4:00	Dogwood	NEOTROPICAL FLORAS REVEAL THE BIOGEOGRAPHIC EVOLUTION OF PALEOCENE TO MIOCENE (60 TO 19 MA) FORESTS	Fabiany Herrera*
4:45 poster	Ballrooms 1&2	USING NITROGEN ISOTOPES TO CHARACTERIZE NITRATE CYCLING IN COASTAL ENVIRONMENTS IN BOCAS DEL TORO ARCHIPELAGO, PANAMA	Lauren E. Graniero

SUNDAY AM, FEB. 16

Time	Room	Title	Presenter
8:30	Ballroom C	RECONSTRUCTING THE EXTINCTION OF THE GIANT MEGALODON SHARK (<i>CARCHARCOLES MEGALODON</i>)	Catalina Pimiento*
9:15	Azalea	CRETACEOUS LINGULIDAE BRACHIOPODS OF THE TROPICAL AMERICA	Alexis Rojas*
9:45	Azalea	BEYOND THE GONDWANAN EXPRESSWAY: PATAGONIAN-NORTHERN HEMISPHERE CONNECTIONS	Elizabeth J. Hermsen
10:45	Azalea	NEOTROPICAL CRETACEOUS-PALEOGENE FOSSIL MACROFLORAS AND ITS AFFINITIES WITH TEMPERATE AMERICA	Camila Martínez*
11:00	Dogwood	SHAPE CHANGE IN A CARIBBEAN MIOCENE BIVALVE AND IMPLICATIONS FOR CONSERVATION AND MODERN ECOSYSTEM MANAGEMENT	Sahale Casebolt
11:00	Ballroom A	HOLOCENE PALEOCLIMATE RECONSTRUCTION FROM D18O ISOTOPES OF <i>NEOCYCLOTUS</i> OPERCULA AND A MORPHOMETRIC ANALYSIS OF THEIR VARIATION AT THE ARCHAIC SITE OF SAN JACINTO1 COLOMBIA	Jorge L. Garcia
11:15	Azalea	DYNAMICS OF THE NEOTROPICAL RAINFOREST DURING GLOBAL WARMING EVENTS	Carlos Jaramillo*
11:15	Dogwood	TAXONOMIC AND ECOLOGICAL CHANGES ACROSS THE PLIO-PLAISTOCENE EXTINCTION AND RECOVERY: DIFFERENT MECHANISMS IN THE CARIBBEAN AND NORTH AMERICA?	Max Christie

SUNDAY PM, FEB. 16

Time	Room	Title	Presenter
1:30	Azalea	REVISITING THE OLIGOCENE BELÉN FRUIT AND SEED FLORA OF NORTHWESTERN PERU	Stephen Manchester*
2:15	Azalea	NEW LATE MIOCENE DROMOMERYCINE ARTIODACTYL FROM THE AMAZON BASIN: THE PANAMA LAND BRIDGE WAS OPEN AT 10 MA	Donald Prothero
3:15	Dogwood	SIZE-SELECTIVE EVOLUTION IN THE FIGHTING CONCH <i>STROMBUS PUGILIS</i> IN RESPONSE TO PREHISTORIC AND MODERN SUBSISTENCE HARVESTING	Aaron O'Dea*
4:30	Azalea	BODY SIZE CHANGE OF <i>CARCHAROCLES MEGALODON</i> THROUGH TIME IN COMPARISON WITH CONTEMPORANEOUS MARINE MEGA-FAUNA	Meghan A. Balk*

4:45 poster	Ballrooms 1&2	<i>SEAGRASS-ASSOCIATED MOLLUSKAN DEATH ASSEMBLAGES IN THE BIG BEND REGION OF FLORIDA, GULF OF MEXICO</i>	Katherine Cummings*
4:45 poster	Ballrooms 1&2	<i>FIRST EVIDENCE OF CORAL-INHABITING GALL CRABS (CRYPTOCHIRIDAE) FROM THE FOSSIL RECORD</i>	Roger Portell*
4:45 poster	Ballrooms 1&2	<i>A PALEOZOIC-LIKE ASSEMBLAGE IN THE OLIGOCENE OF ANTIGUA, WEST INDIES</i>	Stephen K. Donovan
MONDAY, FEB. 17			
Time	Room	Title	Presenter
3:45	Ballroom A	DIGITIZING PALEONTOLOGICAL COLLECTIONS FOR NEW AUDIENCES: PAST PRACTICES AND THE POTENTIAL FOR PUBLIC PARTICIPATION	Austin Hendy*
3:45	Ballroom B	EXPANSION OF THE PANAMA CANAL AND THE RISE OF THE ISTHMUS	Carlos Jaramillo*
4:00	Ballroom A	FOSSIL—A NATIONAL NETWORK OF FOSSIL CLUBS AND PROFESSIONAL PALEONTOLOGISTS IN THE U.S.	Bruce MacFadden*
4:00	Ballroom B	LATE PLIOCENE-PLEISTOCENE CLIMATE CHANGE FROM LA GUAJIRA PENINSULA (COLOMBIA)	Federico Moreno*
4:45 poster	Ballrooms 1&2	<i>ENDOCRANIAL MORPHOLOGY OF THE EXTINCT ANTILLEAN SHREW NESOPHONTES (LIPOTYPHILA: NESOPHONTIDAE) FROM NATURAL AND DIGITAL ENDOCASTS OF CUBAN TAXA</i>	Johanset Orihuela
TUESDAY, FEB. 18			
Time	Room	Title	Presenter
8:15	Dogwood	ANNUAL SHELL INCREMENTS REVEAL SHIFTING BASELINES AND ANTHROPOGENIC INFLUENCES ON ANCIENT AND MODERN HARD CLAM POPULATIONS	Douglas S. Jones*
8:15	Ballroom B	THE EARLY MIOCENE PROTOCERATIDS (MAMMALIA, ARTIODACTYLA) FROM THE PANAMA CANAL BASIN	Aldo F. Rincon*
10:30	Ballroom B	STRATIGRAPHIC PALEOBIOLOGY THROUGH TIME AND ACROSS SPACE: CASE STUDIES AND CHALLENGES	Austin Hendy*
10:45	Ballroom C	3D ECOMORPHOLOGY OF MIOCENE-PLIOCENE HORSE ASTRAGALI: TESTING THE GULF COAST REFUGIUM HYPOTHESIS VIA SHAPE ANALYSIS OF DIGITAL MORPHOLOGIES	Aaron R. Wood*

Short presentation previews provided by the presenting authors:

Boglárka Erdei

Eocene marine sediments from Panama preserved a fossil leaflet that was proved to be the first, unequivocal fossil record of the modern cycad genus *Zamia* based on its characteristic epidermal traits. We adopted morphometric measurements to compare cuticle morphology of the fossil with modern species of *Zamia* belonging to various clades of the genus. Our results corroborated a closer similarity with Caribbean *Zamia* species than with other Mesoamerican or South American species.

David Goodwin

This project uses a sclerochronological approach to document patterns of heterochronic evolution in Tropical American corbulids. We document growth patterns of cognate species found on either side of the Central American Isthmus. Our results suggest that the Eastern Pacific species, which is larger and ontogenetically older than its Western Atlantic counterpart, is peramorphic by hypermorphosis.

Lauren Graniero

Nitrogen isotopes recorded in mollusk shell organic matrix can be used to describe nutrient cycling in various coastal sites in Bocas del Toro, Panama. This modern calibration will describe anthropogenic and natural sources of nitrogen entering coastal ecosystems, with the potential to be used in paleoenvironmental reconstructions.

Jonathan Hendricks

Dr. Hendricks will demonstrate the utility of ultraviolet light for revealing the original coloration patterns of Neogene cone snail species from the Dominican Republic. Particular emphasis will be given to the importance of this tool for understanding ancient biodiversity in this group of mollusks.

Fabiany Herrera

I am investigating well-preserved fruit and seed floras ranging from ~60 to ~19 million years ago, from the Paleocene (Cerrejón & Bogotá floras), Eocene (Tonosí flora), and Miocene (Cucaracha flora) of Central and northern South America (specifically Colombia and Panama), to address the following questions: 1) Was northern South America phytogeographically isolated during the Paleogene? 2) What families first colonized the emergent land in the Panamanian arch during the late Eocene? 3) Did the Panamanian seaway act as a strong geographic barrier between the South and Central American forests in the Miocene?

Carlos Jaramillo

I will present an overall summary of the main findings of PIRE compared with previous hypothesis on the rise of the isthmus and its consequences

Aaron O'Dea

Size-selective evolution applies selection to reproduce at smaller size and occurs when humans repeatedly harvest the largest individuals, but is commonly considered important only through industrial harvesting. Using fossil and archeological material we show that low level harvesting of the Caribbean *Strombus pugilis* over 7000 years was an effective agent of size-selective evolution; one important consequence of which is that early prehistoric harvesters received over 50% more meat per conch than their modern counterparts.

Johanset Orihuela

I describe and compare the endocranial morphology of these extinct insectivorans through the use of computed tomography (CT). My study supports a high similarity between the endocranial morphology of *Nesophontes* to *Solenodon*, more so than to other Lipotyphlan. The study of these small vertebrate's endocranium also allows me to indirectly reconstruct their behavior and ecology.

Donald Prothero

Prothero, D.R., Beatty, B.L., Campbell, K.C., Jr., and Frailey, C.D. (in press) have discovered an extinct deer-like dromomerycine, a group otherwise known only from the Miocene rocks of North America and Eurasia. It is the first and only such occurrence of this group in South America, and it comes from beds in the Peruvian Amazon over 10 Ma in age. Along with the mastodons, peccaries, and tapirs already reported from these beds, it shows that North American mammals did not all cross the Panama land bridge at 3.5 Ma as long thought. Many groups were in South America at 10 Ma or even earlier.

Jorge Velez-Juarbe:

In our presentation we describe a new fossil species of pygmy sperm whale from Panama which shows that these cetaceans have been present in the Neotropics during the last 6 million years. We also describe fossil from Florida which show that at least two species of pygmy sperm whales lived in the region about 5 million years ago and formed part of one of the most diverse marine mammal assemblages of that time.