

## List of Authors and Abstract Titles in Chronological Session Order

TUESDAY, NOVEMBER 2, 2021, 10:00AM EDT-12:00PM EDT  
ROMER PRIZE: LIVE Q&A NETWORKING SESSION

### TALKS

**M. Fabbri.** RADIATION OF AQUATIC PREDATORY DINOSAURS

**T. Green.** GROWTH AND SEX: EVOLUTIONARY AND DEVELOPMENTAL ANALYSES OF FORM-FUNCTION RELATIONSHIPS IN THE CRANIAL ORNAMENTATIONS OF NON-AVIAN AND AVIAN DINOSAURS

**P. Medina-González.** DOES SIMILAR MORPHOLOGIES MEAN THE SAME MOVEMENT CAPABILITIES? MORPHOFUNCTIONAL SPACES FOR *CARAGUATYPOTHERIUM MUNOZI* (NOTOUNGULATA; MESOTHERIIDAE) AND *NOTOSTYLOPS MURINUS* (NOTOUNGULATA; NOTOSTYLOPIDAE)

**N.M. Morales Garcia.** THE FEEDING ECOLOGY OF MESOZOIC MAMMALS: A BIOMECHANICAL APPROACH

**A. Pearson.** CEREBRAL REORGANIZATION IN OLD WORLD MONKEYS (CERCOPITHECOIDEA): NEW APPROACHES QUANTIFYING TEMPORAL LOBE EVOLUTION

**D.M. Reuter.** UNPACKING MAMMALIAN OMNIVORE MACROECOLOGY AND MACROEVOLUTION WITH APPLICATIONS TO THE FOSSIL RECORD

**J.P. Rule.** HOW SEALS CONQUERED THE WORLD: INFERRING THE DISPERSAL CAPABILITIES OF ANCIENT TRUE SEALS (FAMILY PHOCIDAE)

**D. Smith Paredes.** THE DEVELOPMENT OF THE TETRAPOD LIMB MUSCULATURE

**C. Torres.** BIRD NEUROCRANIAL AND BODY MASS EVOLUTION ACROSS THE END-CRETACEOUS MASS EXTINCTION: A UNIQUELY AVIAN RESHAPING OF THE BRAIN LEFT ALL OTHER DINOSAURS BEHIND

**M.L. Turner.** INSIDE THE “BLACK BOX” OF THE CRUROTARSAL ANKLE AND INSIGHTS INTO THE PEDAL ORIGINS OF LOCOMOTOR DIVERSITY IN ARCHOSAURS

**L.N. Weaver.** BONE HISTOLOGY OF MULTITUBERCULATE MAMMALS POINTS TO A LIFE HISTORY STRATEGY SIMILAR TO THAT OF PLACENTALS, NOT MARSUPIALS

**C.D. Whalen.** A BAYESIAN TIP-DATED PHYLOGENY OF STEM VERTEBRATES, TOTAL-GROUP CYCLOSTOMES, AND STEM GNATHOSTOMES

**TUESDAY, NOVEMBER 2, 2021, 1:00PM EDT-2:00PM EDT  
FISHES EVOLUTION & DISTRIBUTION NETWORKING SESSION**

**POSTERS**

**J.G. Allen, K. Shimada.** RELATIVE ABUNDANCE BY TAXA IN A UNIQUE LATE CRETACEOUS BONEBED FROM WESTERN KANSAS, USA, LIKELY REVEALING A MORE ACCURATE REPRESENTATION OF THE 'NIOBRARA VERTEBRATE FAUNA'

**D. Broussard, E.B. Daeschler, C. Burrow, J. Trop, P. Zippi, T. Hess.** NEW RECORDS OF LATE DEVONIAN ISCHNACANTHIFORM ACANTHODIANS FROM THE CATSKILL FORMATION OF NORTH-CENTRAL PENNSYLVANIA, USA.

**C. Duffin, B. Lauer, R. Lauer, E. Popov, D. Ward.** CHIMAEROID EGG CAPSULES FROM THE LATE JURASSIC LITHOGRAPHIC LIMESTONES OF SOUTHERN GERMANY

**S.Z. Gibson, N. Gammel, M. Julius, A. Simons.** NEW DISCOVERY OF PLEISTOCENE-AGE FOSSIL FISHES (OSTARIOPHYSI: CYPRINIFORMES) FROM SOUTHWESTERN MINNESOTA

**J.M. Hodnett, R.S. Toomey, R.A. Olson, D.K. Elliott, J. Wood, J. Tweet, V.L. Santucci.** THE LATE MISSISSIPPIAN (VISÉAN) CHONDRICHTHYAN ASSEMBLAGE OF THE ST. LOUIS FORMATION AT MAMMOTH CAVE NATIONAL PARK, KENTUCKY

**S.M. Ott, S.Z. Gibson.** A MASS DEATH ASSEMBLAGE OF JUVENILE SEMIONOTIFORM FISHES (NEOPTERYGII: HOLOSTEI) FROM THE REDONDA FORMATION, DOCKUM GROUP, NEW MEXICO

**K. Shimada, J.J. Wood, P.C. Sternes.** COMMENTS ON THE BODY FORM OF THE EXTINCT MEGATOOTH SHARK, *OTODUS MEGALODON*, BASED ON EXTANT LAMNIFORM SHARKS

**J.B. Stout.** LAST FISH IN THE RHEIC OCEAN: PRELIMINARY REPORT ON EARLY CARBONIFEROUS CHONDRICHTHYANS FROM NORTHEAST TENNESSEE AND SOUTHWEST VIRGINIA

**J.J. Wood, B.A. Schumacher, K. Shimada.** FOSSIL MARINE VERTEBRATES FROM THE JUANA LOPEZ MEMBER OF THE UPPER CRETACEOUS CARLILE SHALE IN SOUTHEASTERN COLORADO, USA

**TALKS**

**J.V. Andrews, M. Friedman, J. Schein.** A NEW DANIAN SQUIRRELFISH (ACANTHOMORPHA: HOLOCENTRIDAE) REVEALS EXTENSIVE SURVIVORSHIP ACROSS THE CRETACEOUS-PALEOGENE BOUNDARY

**A. Capobianco, M. Friedman.** FOSSILS REVEAL LONG-DISTANCE MARINE DISPERSALS AND MAJOR ENVIRONMENTAL TRANSITIONS IN THE BIOGEOGRAPHIC HISTORY OF BONYTONGUE FISHES (OSTEOGLOSSOMORPHA)

**A.M. Caron, K. Tietjen, M.I. Coates.** REVISITING *TRAWDENIA PLANTI*: ENDOSKELETAL DATA AND A FRESH LOOK AT ACTINOPTERYGIAN ROOTS

**F. Charest, Z. Johanson, R. Cloutier.** FROM ALLOMETRY TO LIFE-HISTORY – ONTOGENETIC SALTATORY PATTERNS IN THE LATE DEVONIAN JAWED STEM-GNATHOSTOME *BOTHRIOLEPIS CANADENSIS*

**K. Criswell, J. Gillis, J. Head.** EVOLUTION AND DEVELOPMENT OF AXIAL SKELETAL REGIONALISATION IN GNATHOSTOMES: INSIGHTS FROM FISHES

**X. Cui, M. Friedman, M. Zhu.** NEW MATERIAL OF *YOUNGOLEPIS* REVEALS THE EVOLUTION OF LUNGFISH DUROPHAGY

**J.P. Downs, J. Barbosa, E.B. Daeschler.** A NEW SPECIES OF *EUSTHENODON* (SARCOPTERYGII; TETRAPODOMORPHA) AND OTHER TRISTICHOPTERIDS FROM THE CATSKILL FORMATION OF PENNSYLVANIA, USA

**T. El Hossny, E. Samankassou, M. Friedman, L. Cavin.** A LONGIROSTRINE TELEOST FISH FROM THE LATE CRETACEOUS OF LEBANON, AND ITS IMPACT ON THE PHYLOGENY OF TSELFATIIFORMES

**S. El-Sayed, M. Friedman, R.P. Speijer, B.S. Salem, H.M. Sallam.** A NEW MARINE FISH FAUNA DATING TO THE LATEST DANIAN EVENT (LDE – 62.2 MA) OF THE EASTERN DESERT, EGYPT

**R.T. Figueroa, M. Friedman.** A NEW CARBONIFEROUS–PERMIAN RAY-FINNED FISH (OSTEICHTHYES: ACTINOPTERYGII) HIGHLIGHTS THE MORPHOLOGICAL DIVERSITY OF ENDOCRANIAL ANATOMY OF LATE PALEOZOIC ACTINOPTERYGIANS

**E.J. Hilton, L. Grande.** NEW STURGEONS FROM THE LATE CRETACEOUS HELL CREEK FORMATION OF NORTH AMERICA, WITH NOTES ON THE CRETACEOUS RECORD OF THE FAMILY ACIPENSERIDAE

**C. Kevrekidis, S.B. Penk, M. Altner, B. Ruthensteiner, A.F. Cerwenka, B. Reichenbacher.** NEW FOSSILS FROM THE MIDDLE-LATE MIOCENE OF KENYA ILLUMINATE THE HISTORY OF CICHLID FISHES LIVING IN ALKALINE LAKES

**J. Liston, L. Costeur.** PLANKTIVORES BITE BACK: REEXAMINATION OF MAXILLAE ENDS EDENTULOUS PACHYCORMID CLADE

**J. Liu, J. Zhang.** PALEOCENE-EOCENE JIANGHANICHTHYIDS (TELEOST, OSTARIOPHYSI, CYPRINIFORMES) FROM SANSHUI BASIN, CHINA ARE THE OLDEST KNOWN CYPRINIFORMS

**K. Matsui, Y. Kimura.** MAMMALIAN-LIKE TOOTH REPLACEMENT IN A PYCNODONT FISH JAW

**R.L. McKeeby, M. Gottfried.** USING GEOMETRIC MORPHOMETRICS AND OUTLINE ANALYSIS TO DELINEATE ONTOGENETIC HETERODONTY IN RECENT AND FOSSIL WHITE SHARK (*C. CARCHARIAS*) TEETH.

**J. Stack, M. Gottfried.** A PERMIAN ACTINOPTERYGIAN FROM THE MINNEKAHTA LIMESTONE OF SOUTH DAKOTA, USA

**TUESDAY, NOVEMBER 2, 2021, 2:00PM EDT-2:30PM EDT  
STEM TETRAPOD, SQUAMATE, & AMPHIBIAN NETWORKING SESSION**

**POSTERS**

**C.A. Boyd.** A NEW RHINEURID (SQUAMATA: AMPHISBAENIA) FROM THE OLIGOCENE (WHITNEYAN) BRULE FORMATION OF NORTH DAKOTA

**J. Creighton, J. Anderson.** MORPHOLOGICAL ANALYSIS OF A NECTRIDEAN LEPOSPONDYL, *DICERATOSAURUS*, FROM LINTON AND FIVE POINTS, OHIO.

**M.A. EL-Hares, S. El-Sayed, E. Erik R. Seiffert, H.M. Sallam.** A NEW HERPETOFAUNAL ASSEMBLAGE (AGAMIDS AND RANOIDS) FROM THE LATE EOCENE LOCALITY BQ-2 OF THE FAYUM DEPRESSION, EGYPT.

**D. Flores, C.J. Bell, W. Godwin, P.J. Lewis.** THE FIRST RECORD OF *LAMPROPELTIS* FROM MCFADDIN BEACH, TEXAS

**M.R. Forcellati, J.G. Napoli, A.R. Zietlow, D. Meyer, C.J. Raxworthy, M. Norell.** CRANIAL OSTEOLOGY OF *PELTOSAURUS*, BASED ON MICROCT SCANS OF TWO EXQUISITE SKULLS

**J. Head, A.M. Lawing, L. Flynn.** SNAKES FROM THE CHITARWATA FORMATION (OLIGOCENE-EARLY MIOCENE) OF PAKISTAN: FOSSIL EVIDENCE FOR THE EARLY HISTORY OF *ACROCHORDUS*.

**A.M. Kufner, D.M. Lovelace.** DIMINUTIVE ‘*METOPOSAURUS*’ *BAKERI* MATERIAL IS MORPHOLOGICALLY DISTINCT FROM STRATIGRAPHICALLY YOUNGER SMALL-BODIED METOPOSAURIDS

**TALKS**

**J.D. Daza, K. Smith, J. Arias, A. Bauer.** THE SURPRISING LONGEVITY OF STEM-GEKKOTAN LINEAGES

**S.J. ElShafie.** DOES REPTILE BODY SIZE TRACK ENVIRONMENTAL TEMPERATURE WITHIN LOCAL ASSEMBLAGES OR ACROSS CONTINENTAL INTERIORS?

**E.J. Hillan, K. Criswell, J. Head.** REGIONALIZATION OF THE SQUAMATE RIBCAGE IN THE EVOLUTION OF THE SNAKE BODY FORM

**A. Howard, J. Head.** INFERRING HOMOPLASY IN CRANIAL MORPHOLOGY ASSOCIATED WITH FOSSORIALITY IN SNAKES

**J.J. Jacisin, A.M. Lawing.** MIDDLE TRUNK VERTEBRAL SHAPE AND THE ECOMETRICS OF LOCOMOTION AND TEMPERATURE IN NORTH AMERICAN SNAKES

**J. Jia, G. Li, K. Gao.** PALEO-ECOMORPHOLOGICAL DISPARITY OF THE CRYPTOBRANCHOIDEA SALAMANDERS (AMPHIBIA, URODELA) —INSIGHTS FROM GEOMETRIC MORPHOMETRIC ANALYSES OF THE PALATE

**B. Kligman, M. Stocker, A. Marsh, S. Nesbitt, W. Parker.** NEW LATE TRIASSIC STEM-CAECILIAN FROM SOUTHWESTERN NORTH AMERICA STRENGTHENS EVIDENCE FOR LISSAMPHIBIAN MONOPHYLY, AND ILLUMINATES THE ANATOMICAL, FUNCTIONAL, AND GEOGRAPHIC ORIGINS OF LIVING CAECILIANS

**D. Marjanović.** THE ORIGIN OF AMNIOTA IN PHYLOGENETIC CONTEXT

**D. Meyer, C.D. Brownstein, J. Gauthier.** COMPUTED TOMOGRAPHY REVEALS A JURASSIC STEM-GEKKOTAN FROM THE MORRISON FORMATION

**B.K. Otoo, M.I. Coates.** OLD THINGS ARE NEW AGAIN: *WHATCHEERIA*, *AYTONERPETON*, AND A TOURNAISIAN TETRAPOD CROWN

**A. Palci, S. Onary, K. Smith, M. Rabi, O. Wings, M. Lee.** NEW BOOIID SNAKES FROM THE MIDDLE EOCENE (LUTETIAN) FOSSIL KONSERVAT LAGERSTÄTTE GEISELTAL, SAXONY-ANHALT, GERMANY

**C. So, A.M. Kufner, D.M. Lovelace.** COMPARATIVE CRANIAL ALLOMETRY AND ONTOGENY OF A DIMINUTIVE BURROWING STEREOSPONDYL

**TUESDAY, NOVEMBER 2, 2021, 3:00PM EDT-4:00PM EDT  
SYMPOSIUM: VERTEBRATE DENTAL ECOMORPHOLOGY: TOOTH TRAITS THAT  
REFLECT ECOLOGY NETWORKING SESSION**

**TALKS**

**E. Fulwood, G. Yapuncich, D.M. Boyer.** TRENDS IN NORTH AMERICAN PRIMATE ECOMORPHOLOGICAL DISPARITY IN RESPONSE TO CLIMATE FLUCTUATIONS OVER THE EOCENE

**D. Grossnickle, L.N. Weaver, K. Jäger, J. Schultz.** ANTERIORLY DIRECTED MOLAR OCCLUSION IS UNIQUE TO THERIAN MAMMALS AND MAY HAVE FACILITATED THEIR DIETARY DIVERSIFICATION

**J.S. Keller, L.S. Garcia, C.E. Martinez, S.D. Newsome, S.K. Lyons, F.A. Smith.** MICROMAMMAL DENTAL ECOMORPHOLOGY FROM THE PLEISTOCENE TO THE PRESENT AT HALL'S CAVE, TEXAS

**S.A. Martinez, K.M. Jenkins, B. Bhullar.** DENTAL MORPHOLOGY OF PROCOLOPHONIDAE AND IMPLICATIONS FOR PERMO-TRIASSIC POST-EXTINCTION RECOVERY

**R. Messec, J.S. Keller, J. Moore.** HIGH INTRASPECIFIC MOLAR VARIATION IN NORTH AMERICAN EOCENE-OLIGOCENE RODENTS

**R.R. Messer, T. Curtis, M. Belmaker.** EFFECTS OF DEMOGRAPHY AND MORPHOLOGY ON VOLE (*MICROTUS* SPP.) MESOWEAR: IMPLICATIONS FOR PALEOECOLOGICAL RECONSTRUCTIONS

**P.E. Morse, J.D. Pampush, E.J. Fuselier, R.F. Kay.** WHERE'S THE POINT? DENTAL SURFACE SHARPNESS ARISING FROM CONVEX VERSUS CONCAVE OCCLUSAL MORPHOLOGY AND IMPLICATIONS FOR INTERPRETATION OF FOSSIL PRIMATE DIET

**S. Pineda-Munoz, P. Polly.** DIETARY GENERALISM AND ITS IMPLICATIONS TO PALEOECOLOGY, DENTAL MORPHOLOGY AND WEAR

**K.R. Selig, S. López-Torres, A. Burrows, M. Silcox.** DENTAL TOPOGRAPHIC ANALYSIS OF LIVING AND FOSSIL LORISOIDS: A NEW SIGNAL FOR EXUDATE FEEDING IN LORISES AND GALAGOS

**N.S. Vitek, P.E. Morse, S.G. Strait, D.M. Boyer, J.I. Bloch.** TRANSIENT CHANGES IN RELATIVE CROWN AREA AND ENAMEL THICKNESS IN THE INSECTIVOROUS MAMMAL *MACROCRANION* DURING THE PALEOCENE–EOCENE THERMAL MAXIMUM

**E.T. Whiting, D.L. Fox, A.K. Hastings, J.I. Bloch.** DIETARY RECONSTRUCTIONS OF PALEOGENE FOSSIL LIZARDS FROM THE WESTERN INTERIOR OF NORTH AMERICA USING THREE-DIMENSIONAL DENTAL TOPOGRAPHY ANALYSIS AND A MODERN COMPARATIVE DATASET OF EXTANT PLEURODONT SQUAMATES

**TUESDAY, NOVEMBER 2, 2021, 4:00PM EDT-4:45PM EDT  
NON-AVIAN THEROPOD SYSTEMATICS, BIOLOGY, & EVOLUTION NETWORKING  
SESSION**

**POSTERS**

**K.L. Atkins-Weltman, P. O'Connor, E. Snively.** ESTIMATING MASS PROPORTIONS OF *ANZU WYLLIEI*, WITH PARAMETERIZED RECONSTRUCTION OF THE RESPIRATORY SYSTEM

**B.B. Britt, D. Chure, P. Currie, A. Holmes, B. Theurer, R. Scheetz.** A NEW DEINONYCHOSAURIAN THEROPOD FROM THE MID-CRETACEOUS (ALBIAN) MUSSENTUCHIT MEMBER OF THE CEDAR MOUNTAIN FORMATION IN DINOSAUR NATIONAL MONUMENT, NORTHEASTERN UTAH, USA

**C.D. Brownstein, J.G. Napoli, A. Ruebenstahl, M.R. Forcellati, M. Norell.** DIMINUTIVE THEROPODS FROM APPALACHIA AND THE EARLY EVOLUTION OF THE AVIAN BRAINCASE

**T.D. Carr.** *TYRANNOSAURUS REX*: AN ENDANGERED SPECIES

**E. Isasmendi, P. Sáez-Benito, F. Torcida Fernández-Baldor, J. Canudo, A. Torices, X. Pereda-Suberbiola.** PALEOBIODIVERSITY OF THEROPOD DINOSAURS OF THE LOWER CRETACEOUS CAMEROS BASIN, NORTHERN SPAIN

**R.E. Nottrodt.** MORPHOMETRIC ANALYSIS OF NORTH AMERICAN ORNITHOMIMID MANUAL AND PEDAL UNGUALS: CAN UNGUAL SHAPE BE USED TO DISTINGUISH BETWEEN TAXA?

**J.T. Voris, F. Therrien, D. Zelenitsky.** ORIGIN AND DISPERSAL OF DERIVED TYRANNOSAURINES (THEROPODA: TYRANNOSAURIDAE) IN ASIAMERICA: INSIGHT FROM A MIDDLE CAMPANIAN TYRANNOSAURINE FROM ALBERTA, CANADA

**Q. Wu, Q. Zhang.** KEY FINDINGS FROM THE TRANSITION PERIOD: THE EARLIEST FEATHERS OF JEHOL BIOTA

## TALKS

**K.E. Chapelle, M. Norell, D.P. Ford, C. Hendrickx, V.J. Radermacher, A. Balanoff, L.E. Zanno, J.N. Choiniere.** A CT-BASED REVISED DESCRIPTION AND PHYLOGENETIC ANALYSIS OF THE SKULL OF THE BASAL MANIRAPTORAN *ORNITHOLESTES HERMANNI* OSBORN 1903

**C.J. Hohman, D. Varricchio.** ONTOGENETIC IMPLICATIONS OF TWO DISTINCT DROMAEOSAURID MAXILLAE FROM THE CRETACEOUS (CAMPANIAN) TWO MEDICINE FORMATION OF MONTANA, U.S.A.

**T.R. Holtz.** MESOZOIC MEAT-EATER MARKETPLACE: ASSESSING THEROPOD GUILD EVOLUTION BEYOND BODY SIZE

**E. Lessner, C. Holliday.** LIMITED POTENTIAL FOR TRIGEMINAL-INNERVED SENSORY BEHAVIORS AMONG DINOSAURS

**C.R. Marshall, D. Latorre, C. Wilson, T.M. Frank, K. Magoulick, J. Zimmt, A. Poust.** ON THE STANDING POPULATION SIZE OF *TYRANNOSAURUS REX*, THE TOTAL NUMBER THAT EVER LIVED, AND ITS ABSOLUTE PRESERVATION RATE

**A.T. McDonald, D.G. Wolfe, A.C. Dooley.** NEW DATA ON THE TYRANNOSAURID DINOSAUR *DYNAMOTERROR*, INCLUDING A MORE COMPLETE SKELETON, FROM THE MENEFEE FORMATION (MIDDLE CAMPANIAN) OF NEW MEXICO, USA: IMPLICATIONS FOR TYRANNOSAURID EVOLUTION IN SOUTHERN LARAMIDIA

**M. Powers, M. Norell, P. Currie.** EXAMINATION OF MORPHOLOGICAL VARIATION ACROSS *VELOCIRAPTOR MONGOLIENSIS* SPECIMENS REVEALS A NEW SPECIES WITH POSSIBLE ECOMORPHOLOGICAL VARIATION IN SNOUT DIMENSIONS

**V.J. Radermacher, V. Fernandez, W.J. de Klerk, K.E. Chapelle, J.N. Choiniere.** SYNCHROTRON  $\mu$ CT SCANNING REVEALS NOVEL CRANIAL ANATOMY OF THE ENIGMATIC EARLY CRETACEOUS SOUTH AFRICAN COELUROSAUR, *NQWEBASAURUS THWAZI*

**A. Ruebenstahl, J.G. Napoli, B. Bhullar, A.H. Turner, M. Norell.** TWO NEW EUDROMAEOSAURS FROM KHULSAN (CENTRAL MONGOLIA) REVEAL MODERN-LIKE FAUNAL PREDATORY STRUCTURE AMONG NON-AVIAN DINOSAURS

**B.S. Salem, M.C. Lamanna, P. O'Connor, G.M. El-Qot, F. Shaker, W.A. Thabet, S. El-Sayed, H.M. Sallam.** FIRST DEFINITIVE RECORD OF ABELISAURIDAE FROM THE BAHARIYA FORMATION, BAHARIYA OASIS, WESTERN DESERT OF EGYPT INCREASES DIVERSITY OF LARGE-BODIED THEROPODS IN THE MIDDLE CRETACEOUS OF NORTHEASTERN AFRICA

**TUESDAY, NOVEMBER 2, 2021, 7:00PM EDT-7:45PM EDT**  
**MAMMALIAN SKELETAL MORPHOLOGY & MARINE MAMMALS NETWORKING**  
**SESSION**

**MAMMALIAN SKELETAL MORPHOLOGY**

**POSTERS**

**A. Grass.** VISUALIZATION OF SLOTH UNGUAL VASCULATURE

**A.M. Lawson, S.S. Hopkins.** NEW SKULL MATERIAL OF *HAPLOMYS* (RODENTIA, APLODONTIIDAE) GIVES WAY TO NEW MORPHOLOGICAL DETAILS

**V. Naples, M.H. Haji-Sheikh.** *BARBOUROFELIS FRICKI*—THE HEAD BONE IS CONNECTED TO THE NECK BONE OR HOW TO REBUILD A UNIQUE CAT

**A. Martín-Serra, B. Figueirido.** INFLUENCE OF CONSTRAINT AND ADAPTATION ON MORPHOSPACE OCCUPATION PATTERNS OF THE CARNIVORAN APPENDICULAR SKELETON

**J.M. Theodor, S.V. Robson.** THE PETROSAL MORPHOLOGY OF *HEPTACODON OCCIDENTALIS* (ANTHRACOTHERIIDAE)

**TALKS**

**R.J. Asher.** SKULLS, LATITUDE, AND 'RACE': HISTORICAL ATTEMPTS TO UNDERSTAND HUMAN CRANIAL VARIATION

**K. Le Verger, L. Gonzalez Ruiz, G. BILLET.** COMPARATIVE ANATOMY OF INTRACRANIAL OSSEOUS CANALS AND ALVEOLAR CAVITIES PROVIDE FURTHER CLUES ON THE RELATIONSHIPS BETWEEN GLYPTODONTS AND ARMADILLOS (XENARTHRA, CINGULATA)

**D. Rhoda, K.D. Angielczyk.** MORPHOLOGICAL DIVERSIFICATION ALONG AN ALLOMETRIC LINE OF LEAST RESISTANCE IN THE RUMINANT SKULL

**S.V. Robson, J.M. Theodor.** MORPHOLOGICAL VARIATION IN THE PETROSAL OF SOME EXTINCT AND EXTANT CAMELIDS

**J.S. Silviria.** STRAIGHTENING THE HORSE'S MOUTH? NON-DENTAL MANDIBULOMETRY IN DERIVED EQUIDS, AND THE ORIGIN OF *EQUUS CABALLUS*

**R.B. Sulser, R.D. MacPhee.** AN ISLAND APART: ENDOCAST VARIATION WITHIN THE TENRECOMORPHA

**L.D. Toll, J.S. Keller, D.L. Fox, F.A. Smith.** PULLING TEETH: COMPARING BODY SIZE INFERENCES FROM TEETH VERSUS EMPTY SOCKETS



## MARINE MAMMALS

### POSTERS

**A. Ashraf, M. AbdelGawad, A. Zakaria.** THE FIRST RECORD OF A COMPLETE SIRENIA FROM THE MIDDLE EOCENE FOSSILIFEROUS LIMESTONE IN THE EASTERN DESERT, EGYPT

**N.A. Brand, M.D. Uhen.** TACKLING THE MYSTICETE MYSTERY: COMBINING DISPARATE MATRICES TO EXAMINE THE EVOLUTION OF FEEDING MODES IN EARLY BALEEN WHALES

**T. Okamura, Y. Akune, T. Mori, T. Morisaka, W. Otomo, I. Wakabayashi, S. Watanabe, K. Yoda.** THE RELATIONSHIP BETWEEN THE POSTURE OF FLIPPERS AND THE PRESENCE OF DORSAL FINS LEADING TO THE RECONSTRUCTION OF THE DORSAL FIN IN SMALL CETACEANS: THE CONTRIBUTION OF FINS TO LATERAL/DIHEDRAL INHERENT STABILITY

**I.S. Zalmout, Y.A. Al-Mufarreh, S.A. Soubhi, M.A. Haptari, A.I. Nabhan, A.M. Memesh, M.H. Aljahdali, P.D. Gingerich.** FIRST RECORD OF AN UPPER EOCENE ARCHAEOCETE FROM THE RASHRASHIYAH FORMATION, AL-JAWF REGION, NORTHWESTERN SAUDI ARABIA

### TALKS

**E.A. Buchholtz.** FUNCTIONAL AND ONTOGENETIC IMPLICATIONS OF STERNAL STRUCTURE IN MYSTICETE CETACEANS

**M. Clementz, B. Carrapa.** RISING FROM THE ASHES: LINKING ANDEAN VOLCANISM, DIATOMS, AND MARINE MAMMAL DIVERSITY WITH THE LATE MIOCENE COOLING EVENT

**S. Davydenko.** REEXAMINATION OF AN EOCENE CETACEAN *EOCETUS SCHWEINFURTHI* (CETACEA, PROTOCETIDAE): NEW DATA ON MORPHOLOGY, PHYLOGENY AND FEEDING STRATEGY

**A.M. Glass, M.D. Uhen.** NEW CORRELATIONS BETWEEN CRANIOFACIAL AND INNER EAR MORPHOLOGIES FOR ECHOLOCATION AND FEEDING IN ODONTOCETES

**A.S. Gohar, M.S. Antar, S. El-Sayed, H.M. Sallam.** FROZEN IN TIME: UNIQUELY PRESERVED PROTOCETID WHALE ENTOMBED INSIDE DECORATIVE LIMESTONE FROM THE MIDDLE EOCENE OF EGYPT

**A. Lanzetti, V. Fernandez, B. Clark, A. Goswami.** DEVELOPING A TASTE: CONNECTING SKULL SHAPE ONTOGENY AND EVOLUTION OF DIFFERENT FEEDING ADAPTATIONS IN CETACEA USING 3D GEOMETRIC MORPHOMETRICS

**E.C. Rohlicek, R.W. Boessenecker, V.M. Arbour.** EVIDENCE FOR OLIGOCENE CETACEAN DIVERSITY IN THE SOOKE FORMATION (CARMANAH GROUP) OF VANCOUVER ISLAND, BRITISH COLUMBIA, CANADA

**WEDNESDAY, NOVEMBER 3, 2021, 11:30AM EDT-12:15PM EDT  
PERMO-TRIASSIC ECOSYSTEMS NETWORKING SESSION**

**POSTERS**

**A. Marsh, W. Parker, S. Nesbitt, B. Kligman, M. Stocker, E. Patellos.** A NEW SPECIES OF CARNIVOROUS AZENDOHSAURID (ARCHOSAURIFORM) FROM THE CHINLE FORMATION OF PETRIFIED FOREST NATIONAL PARK

**I. Pugh, A.B. Heckert.** MULTIPLE SUPERNUMERARY CARINAE IN REVUELTIAN (TRIASSIC: MID-LATE NORIAN) PHYTOSAUR TEETH FROM THE BULL CANYON FORMATION OF EAST-CENTRAL NEW MEXICO, U.S.A.

**TALKS**

**K.D. Angielczyk, B.R. Peacock, R.M. Smith, C.A. Sidor, J.K. Lungmus, S. Nesbitt, S.L. Olroyd, J. Steyer, M. Stocker, S. Tolan.** THE MANDIBLE OF *COMPSODON HELMOEDI* (THERAPSIDA, ANOMODONTIA), WITH NEW RECORDS FOR THE RUHUHU BASIN, TANZANIA

**L. Czepinski, D. Drozd, T. Szczygielski, M. Talanda, W. Pawlak, A. Lewczuk, A. Rytel, T. Sulej.** AN UPPER TRIASSIC TERRESTRIAL VERTEBRATE ASSEMBLAGE FROM THE FORGOTTEN KOCURY LOCALITY (POLAND) WITH A NEW AETOSAUR TAXON

**D. Drozd, T. Sulej.** NOTES ON VARIATION IN PELVIC DEVELOPMENT OF THE LATE TRIASSIC AETOSAUR *STAGONOLEPIS OLENKAE* FROM NORTHERN PANGEA

**B.M. Gee, C.A. Sidor.** TEMNOSPONDYLS ON ICE: NEW INSIGHTS FROM THE TRIASSIC OF ANTARCTICA

**E.R. Goldsmith, M. Stocker.** ONTOGENETIC INSIGHTS BASED ON A REDESCRIPTION OF THE CRANIAL MORPHOLOGY OF AN IMMATURE ‘*REDONDASAURUS*’ (ARCHOSAURIFORM: PHYTOSAURIA)

**D.K. Hoffman, S. Nesbitt, K.D. Angielczyk, C.A. Sidor, M. Stocker, R.M. Smith, N.J. Tabor, C. Van Beek.** A NEW PSEUDOSUCHIAN ARCHOSAUR FROM THE MIDDLE TRIASSIC OF TANZANIA AND THE EARLY EVOLUTION OF SUCHIANS

**L. Janzen, J. Müller, H. Sues, G. Sobral.** A NEW SPHENODONTIAN FROM THE LATE TRIASSIC OF GERMANY

**B.R. Peacock, K.D. Angielczyk, J.K. Lungmus, J.A. McIntosh, C.A. Sidor, R.M. Smith, S. Tolan, P. Viglietti, M. Whitney.** RHYNCHOSAUR RELATIVITY: NEW STENAULORHYNCHINES FROM THE MID-LUANGWA BASIN, ZAMBIA, AND THE EVOLVING BIOSTRATIGRAPHY OF VERTEBRATE ASSEMBLAGES AT THE MIDDLE-LATE TRIASSIC BOUNDARY

**A.C. Pritchard.** REVISED PHYLOGENETIC ANALYSIS OF PERMO-TRIASSIC DIAPSID SUPPORTS KUEHNEOSAURIDS AS BASAL ARCHOSAURIFORMS

**T. Sethapanichsakul, M.J. Benton.** A JUVENILE RHYNCHOSAUR SPECIMEN FROM THE OTTER SANDSTONE FORMATION OF SOUTHERN ENGLAND (ANISIAN, MIDDLE TRIASSIC)

**T. Szczygielski, T. Sulej.** A NEW STAHLECKERIID FROM POLAND

**K. To, M. Stocker, S. Nesbitt.** TRACING THE ARCHOSAURIAN BEAK USING THE LATE TRIASSIC ARCHOSAUIROMORPH, *TRILOPHOSAURUS BUETTNERI*

**P. Viglietti, A. Rojas, M. Rosvall, B. Davis, K.D. Angielczyk.** A NETWORK-BASED BIOSTRATIGRAPHIC FRAMEWORK FOR THE BEAUFORT GROUP (KAROO SUPERGROUP), SOUTH AFRICA

**WEDNESDAY, NOVEMBER 3, 2021, 12:15PM EDT-12:45PM EDT  
AVIALAN EVOLUTION & BIOLOGY NETWORKING SESSION**

### **POSTERS**

**B.J. Hillesheim.** SPECIES DISTRIBUTION MODELING OF NON-MIGRATORY AND WINTERING SANDHILL CRANES (*GRUS CANADENSIS*) AT PAST AND FUTURE TIME INTERVALS

**T. Tanaka, R. Takasaki, K. Chiba, S. Hayashi, K. Brink, M. Buuvei, K. Tsogtbaatar.** A HESPERORNITHIFORM FROM THE UPPER CRETACEOUS NEMEGT FORMATION IN THE GOBI DESERT OF SOUTHWEST MONGOLIA: IMPLICATIONS FOR PALEOECOLOGY OF INLAND HESPERORNITHIFORMS

### **TALKS**

**E. Alger-Meyer, T.A. Gates.** SURVEY OF CORNIFIED TISSUE COVERINGS IN BIRD BILLS WITH IMPLICATIONS FOR HADROSAURID DINOSAUR RECONSTRUCTIONS

**J. Benito, A. Chen, B. Bhullar, D.J. Field.** 40 NEW SPECIMENS OF *ICHTHYORNIS* PROVIDE UNPRECEDENTED INSIGHT INTO THE POSTCRANIAL MORPHOLOGY OF CROWNWARD STEM GROUP BIRDS

**B.R. Chapman, L.E. Wilson.** CONTROLS ON THE CAMPANIAN DISTRIBUTION OF *HESPERORNIS* (AVES: HESPERORNITHIFORMES) IN THE WESTERN INTERIOR SEAWAY

**A. Chen, R.B. Benson, D.J. Field.** TOWARDS A COMPREHENSIVE ANATOMICAL MATRIX FOR CROWN BIRDS: PHYLOGENETIC INSIGHTS FROM THE PECTORAL GIRDLE AND FORELIMB SKELETON

**O.E. Demuth, J. Benito, D.J. Field.** THREE-DIMENSIONAL RECONSTRUCTION OF VERTEBRATE MORPHOLOGY AND QUANTIFICATION OF TAPHONOMIC DEFORMATION

**D.J. Field, J. Benito, P. Kuo, J. Jagt.** MESOZOIC FOSSIL INSIGHT INTO THE PALAEOGNATH-NEOGNATH ANATOMICAL DICHOTOMY

**L. King, M.E. Kirchner-Smith, D. Landi.** THE NEUROANATOMY, OLFACTORY ABILITY, AND TROPHIC ECOLOGY OF *TERATONIS MERRIAMI* (AVES: TERATORNITHIDAE)

**J.A. Moretti, E. Johnson.** SMALL RAILS (AVES: GRUIFORMES: RALLIDAE) FROM THE LATE PLEISTOCENE AND EARLY HOLOCENE OF THE SOUTHERN HIGH PLAINS OF TEXAS.

**J. O'Connor, M.C. Lamanna, J. Harris, H. Hu, A. Bailleul, M. Wang, H. You.** FIRST AVIAN SKULLS FROM THE LOWER CRETACEOUS XIAGOU FORMATION, GANSU, CHINA

**E. Steell, J.M. Nguyen, R.B. Benson, D.J. Field.** COMPARATIVE MORPHOLOGY OF THE PASSERINE CARPOMETACARPUS: IMPLICATIONS FOR INTERPRETING THE FOSSIL RECORD OF CROWN PASSERIFORMES

**D. Williams, D. Burnham, L. Gurche.** REPORT OF A DIVING BIRD FROM THE HELL CREEK FORMATION, GARFIELD COUNTY, MONTANA.

**WEDNESDAY, NOVEMBER 3, 2021, 1:30PM EDT-2:15PM EDT  
PREPARATORS' NETWORKING SESSION**

**POSTERS**

**M. Brown.** ON THE RISK OF USING CAST REPLICAS AS EVIDENCE OF THE FOSSIL RECORD

**V. Carrió.** EVALUATION ON THE PROCEDURES FOR THE REMOVAL OF ADHESIVES USED FOR FOSSIL SPECIMENS FROM THE 19<sup>TH</sup> CENTURY EXHIBITIONS AT THE NATIONAL MUSEUMS OF SCOTLAND

**L.D. Collins, B.S. Dooley, A.T. McDonald, M.N. Mendleson.** PALEO TOOLS VS. THE STONE COMPANY AIR SCRIBES: AN UNOFFICIAL USAGE GUIDE

**M. Ferrer Ventura, A. Torices, X. Mar-Barberà, P. Navarro-Lorbés, R. San Juan-Palacios.** AN APPROACH TO USE CYCLODODECANE AS PROTECTION FOR MECHANICAL MATRIX REMOVAL OF A THEROPOD TOOTH

**E. Gorscak, D.E. Ehrlich.** EXPLORATORY RETRODEFORMATION METHOD ON COMPRESSED FOSSILS USING SLICED SURFACE CONTOURS: A CASE STUDY ON THE OBLIQUELY COMPRESSED METAPODIALS OF AN EGYPTIAN TITANOSAURIAN SAUROPOD DINOSAUR

**S. Van Hauwermeiren, A. Hellemond.** PREPARATION OF THE NIEUWDONK COLLECTION (BERLARE, BELGIUM): A WINDOW INTO THE LAST GLACIAL AND INTERGLACIAL FAUNAS OF THE FLEMISH VALLEY

**L. Vietti, A.B. Shaffer, T.J. Kerr.** APPLICATION OF FULL COLOR 3D PRINTERS TO FOSSIL PREPARATION, RESEARCH, AND COLLECTIONS MANAGEMENT AT THE UNIVERSITY OF WYOMING

**TALKS**

**C. Byrd, E. Biedron, J. Woodward, C. Green.** MOVING AN OVERSIZE COLLECTION DURING A PANDEMIC

**J. Cavigelli, J. Van Veldhuizen.** YET ANOTHER TECHNIQUE FOR CURATING MICROMAMMAL FOSSILS THAT EMPHASIZES COST, VISIBILITY, TIME AND STORAGE EFFICIENCY, SPECIMEN AND DATA PROTECTION

**J. Foster, S.D. Sroka, T.F. Howells.** PALEONTOLOGICAL RADIATION AND RADON MONITORING: A CASE STUDY FROM THE UTAH FIELD HOUSE OF NATURAL HISTORY

**M. Fox.** MOUNTING FOSSIL SPECIMENS FOR MICRO-CT SCANNING

**J. Groenke, P. O'Connor.** PREPARATION AND RECONSTRUCTION OF *FALCATAKELY FORSTERAE*, AN ENANTIORNITHINE BIRD FROM THE UPPER CRETACEOUS MAEVARANO FORMATION OF MADAGASCAR

**J. Hook.** MARINE FOSSILS FROM THE COALEDO FORMATION: A CASE STUDY ILLUSTRATING THE WORKFLOW TO PREPARE AND SHIP AN UNCURATED COLLECTION

**C.G. Levitt-Bussian, A.E. Wilkins, A.W. Johnson, T.J. Mareck.** HARNESSING THE POWER OF COMMUNITY SCIENCE TO DIGITIZE, TRANSCRIBE, AND IMPORT PREPARATION INFORMATION INTO A COLLECTIONS MANAGEMENT DATABASE SYSTEM

**E. Lund, L. Herzog, L.E. Zanno.** COLLECTION AND PREPARATION OF A *TRICERATOPS PRORSUS* SKULL PROVIDES UNIQUE OPPORTUNITIES FOR SCIENCE COMMUNICATION AND EDUCATION IN MATERIALS AND METHODS IN PALEONTOLOGY

**C. Lutz, C. Lash.** UTILIZING OLD AND NEW TECHNIQUES TO BRING NEW LIFE TO OLD DISPLAYS

**M.K. Macias, C. Shi, A. Montenegro, A. Ollendorf.** ACCESSIONING A LARGE FOSSIL COLLECTION FROM THE FAIRMEAD LANDFILL LOCALITY, CITY OF CHOWCHILLA, MADERA COUNTY, CALIFORNIA

**M. Pinsdorf.** FOSSIL PREPARATION CONTINUES AT THE SMITHSONIAN INSTITUTION NATIONAL MUSEUM OF NATURAL HISTORY DURING COVID-19 PANDEMIC

**D. Wagner, J. Lively, M. Brown.** CONSERVATION OF A MOLD AND FIRE-DAMAGED MOSASAUR SPECIMEN

**WEDNESDAY, NOVEMBER 3, 2021, 2:15PM EDT-3:15PM EDT**

**LATE CENOZOIC MAMMALIAN EVOLUTION & ECOLOGY NETWORKING SESSION**

### **POSTERS**

**A. DeMers, J. Hunter.** INFERRING ARCHAIC UNGULATE DIETS USING TWO-DIMENSIONAL DENTARY MORPHOLOGY

**C.M. Janis, A. O'Driscoll, H. Richards.** DID MIOCENE DIDACTYL STHENURINE KANGAROOS WALK LIKE THE PLIO-PLEISTOCENE MONODACTYL ONES?

**S.E. Jasinski, S.G. Abbas.** BIODIVERSITY AND CARNIVORAN FAUNAL DYNAMICS IN SOUTHWESTERN ASIA AND NORTH AMERICA DURING THE MIOCENE–PLIOCENE

**W.D. Lambert, R.E. Eshelman, G.S. Morgan, S.J. Godfrey.** A NEW GENUS OF GOMPHOTHERE (MAMMALIA, PROBOSCIDEA, GOMPHOTHERIIDAE) FROM THE MIOCENE CHOPTANK FORMATION OF VIRGINIA, AND A REVIEW OF BARSTOVIAN AND CLARENDONIAN GOMPHOTHERES FROM THE CHESAPEAKE BAY REGION

**R. López-Antoñanzas, P. Peláez-Campomanes.** THE EVOLUTION OF MIOCENE CRICETIDAE (MAMMALIA, RODENTIA): BAYESIAN MORPHOLOGICAL CLOCK, DISPERSAL AND BIODIVERSITY

**G.M. Semperebon, C.M. Janis.** WHAT WAS THE MAIN DRIVER OF HYPSONDONTY ACQUISITION IN NORTH AMERICAN UNGULATES?

**T. Tsubamoto, N. Handa.** REAPPRAISAL OF A SUPPOSED CHALICOTHERIID (MAMMALIA, PERISSODACTYLA) FEMUR FROM THE PLIOCENE OF CENTRAL MYANMAR

## **TALKS**

**M. Asim, M.A. Khan.** *MIOTRAGOCERUS* (ARTIODACTYLA, BOVIDAE) FROM CHINJI STRATA (MIDDLE MIOCENE) OF PAKISTAN

**M. Babar, M.A. Khan, S.G. Abbas.** ANTHRACOTHERIIDS (ARTIODACTYLA) FROM MIDDLE SIWALIK SUBGROUP, PAKISTAN

**S. Bartolini Lucenti, L. Rook.** *CANIS FEROX* REVISITED WITH DIETARY INFERENCES ON *EUCYON* SPECIES

**I. Bonilla-Salomón, À. Luján, M. Ivanov, M. Sabol.** *ALIVERIA* SP. NOV. AMONG OTHER SCIURID REMAINS (MAMMALIA, RODENTIA) FROM THE EARLY MIOCENE OF MOKRÁ-QUARRY (MORAVIA, CZECH REPUBLIC) AND ITS LOCOMOTOR ADAPTATIONS

**L. DeSantis, K. Black, M. Archer, S. Hand.** TREE-CLIMBING IN SEARCH OF FRUIT: PALEOECOLOGY OF THE DIPROTODONTID *NIMBADON LAVARACKORUM*

**E. Galbrun, J.S. Hermansen, I. Zliobaite.** PROBING THE MAMMALIAN FOSSIL RECORD FOR PATTERNS OF COMPETITIVE EXCLUSION USING COMPUTATIONAL RANDOMIZATION EXPERIMENTS

**L.A. Gonzales, M. Arnal, L. Angel Valdivia, P.E. Morse, M.R. Borths, P.R. Fleming, J. Martinez, R.F. Kay.** FIRST EARLY MIOCENE CAVIOMORPH ASSEMBLAGE FROM LOW LATITUDES OF SOUTH AMERICA

**I.A. Kerr, G.J. Prideaux, A.B. Camens, T.H. Worthy.** POSTCRANIAL TRAITS DIFFERENTIATE SPECIES OF THE LATE CENOZOIC KANGAROO GENUS *PROTEMNODON* BETTER THAN TEETH

**C. Lopez-Aguirre, S. Hand, A. Link, M. Silcox.** NICHE PARTITIONING BETWEEN CONGENERIC SPECIES WITHIN A RICH MIOCENE NEOTROPICAL BAT COMMUNITY FROM COLOMBIA

**K.M. Loughney, C. Badgley, R. Feng, A. Bahadori, W. Holt, E. Rasbury.** LARGE- AND SMALL-MAMMAL RICHNESS OF THE BASIN AND RANGE THROUGH CHANGING CLIMATE SINCE 36 MA

**J.B. Rossie, S. Cote.** NEW FOSSIL APE MATERIAL FROM THE LOTHIDOK FORMATION, NORTHERN KENYA

**K. Travouillon, R. Beck, J.A. Case.** PERAMELEMORPHIAN (BANDICOOT AND BILBIES) DIVERSITY OF THE ETADUNNA AND WIPAJIRI FORMATIONS, LATE OLIGOCENE TO EARLY–MIDDLE MIOCENE, SOUTH AUSTRALIA

**WEDNESDAY, NOVEMBER 3, 2021, 3:30PM EDT-4:15PM EDT  
MESOZOIC & PALEOGENE MAMMALS NETWORKING SESSION**

**POSTERS**

**J.A. Case.** A NEW LATE OLIGOCENE PYGMY POSSUM (BURRAMYIDAE) FROM THE LAKE EYRE BASIN, SOUTH AUSTRALIA

**E. Froehlich, S.S. Hopkins.** *RUDIOMYS* (RODENTIA, APLDONTIDAE) FROM THE JOHN DAY FORMATION OF OREGON

**J. Grubbs, J.F. Genise, K.A. Nichols, T. Bown.** DETERMINING INSECT PREY OF EARLY EOCENE PRIMATES FROM TRACE FOSSILS, WILLWOOD FORMATION, BIGHORN BASIN, WYOMING, USA

**F. Habib, M. AbdelGawad, A. Sileem, G. Abdel-Gawad, Y. Salama.** LATERAL DISTRIBUTION OF THE PALEOGENE *ARSINOITHERIUM* IN AFRICA AND THE AFRO-ARABIAN REGION

**E. Huang, G.S. Bever.** STILL EXPLORING CONFLICTING MOLECULAR AND MORPHOLOGICAL SIGNALS IN THE PHYLOGENETIC ASSESSMENT OF FOSSILS—A CRITICAL LOOK AT THE EARLY HISTORY OF PRIMATES

**T. Okoshi, S. Kodaira, K. Chiba, M. Saneyoshi, A. Takahashi, M. Natori, B. Mainbayar, K. Tsogtbaatar.** A NEW MAMMAL FOSSIL FROM THE UPPER CRETACEOUS BAYNSHIRE FORMATION, GOBI DESERT, MONGOLIA

**L. Perales-Gogenola, G. Merceron, A. Badiola, A. Gómez-Olivencia, X. Pereda-Suberbiola.** WHAT DID THE PALAEOOTHERIID *PLAGIOLOPHUS* FEED FROM?—A STUDY ON ITS EVOLUTIONARY ECOLOGY AND PALEODIET THROUGH TIME AND SPACE

**E.M. St Clair, D.M. Boyer, K. Beard.** REASSESSMENT OF THE DENTAL REDUCTION SEQUENCE IN PLESIADAPIDAE (MAMMALIA, PLESIADAPIFORMES) AND IMPLICATIONS FOR EVOLUTIONARILY CONSERVED PATTERNS OF LOSS OF VESTIGIAL STRUCTURES

**S.P. Zack, T. Penkrot.** NEW MATERIAL OF *LOPHIPARAMYS* (MAMMALIA, RODENTIA), INCLUDING TARSALS, FROM THE WILLWOOD FORMATION (EARLY EOCENE)

**TALKS**

**P. dePolo, G. Funston, S. Shelley, T. Williamson, J. Wible, S. Brusatte.** THE FIRST JUVENILE OF *PANTOLAMBDA BATHMODON* (MAMMALIA, PANTODONTA) FROM THE SAN JUAN BASIN, NEW MEXICO, USA

**G. Funston, P. dePolo, S. Shelley, J. Wible, T. Williamson, S. Brusatte.** LIFE HISTORY OF AN ARCHAIC PLACENTAL MAMMAL, *PANTOLAMBDA BATHMODON* (PLACENTALIA, PANTODONTA)

**B.T. Hovatter, S.G. Chester, G. Wilson Mantilla.** NEW RECORDS OF EARLIEST TORREJONIAN (TO1) PLESIADAPIFORMS FROM NORTHEASTERN MONTANA, USA, PROVIDE WINDOW INTO THE EARLY DIVERSIFICATION OF STEM PRIMATES

**A. Huttenlocker, S.A. Singh, A.C. Henrici, S.S. Sumida.** A CARBONIFEROUS SYNAPSID JAW WITH CANINIFORM TEETH AND A REAPPRAISAL OF MANDIBULAR SIZE-SHAPE HETERODONTY IN THE ORIGIN OF MAMMALS

**M.F. Jones, Q. Li, X. Ni, K. Beard.** THE EARLIEST ASIAN BATS AND IMPLICATIONS FOR EVOLUTION AND BIOGEOGRAPHY OF EOCENE BATS

**M.S. Juhn, J. Aramkul, M. Balisi, E. Doughy, A. Friscia, A. Howenstine, C. Jacquemetton, J. Marcot, S. Nugen, B. Van Valkenburgh.** NORTH AMERICAN MAMMAL PREDATOR DIVERSITY AND FUNCTIONAL TRAIT RESPONSE TO CLIMATE CHANGE ACROSS THE PALEOGENE

**R.F. Kay, M. Arnal, W. Salenbien, L. Angel Valdivia, P.E. Morse, M.R. Borths, P.R. Fleming, J. Martinez, L.A. Gonzales.** PALEOGENE RODENTS OF THE HUAYABAMBA FORMATION, OF THE ALTO RÍO MADRE DE DIOS AND ITS TRIBUTARIES, AMAZONIAN PERU

**T. Sulej.** EVOLUTION OF DENTITION IN MAMMALIAMORPHA

**J.D. Wilson, E. Huang, G.S. Bever.** PUSHING THE LOWER LIMITS OF BODY SIZE: BODY MASS ESTIMATES FOR THE STEM-THERIAN EUTRICONODONTA

**A.F. Wroblewski.** FIRST, BIGGEST, AND OLDEST: A COMPLEX, UPPER PALEOCENE MAMMAL TRACKSITE REVEALS IMPORTANT EVOLUTIONARY INSIGHTS

**THURSDAY, NOVEMBER 4, 2021, 10:00AM EDT-11:00AM EDT  
COLBERT POSTER PRIZE NETWORKING SESSION**

## **POSTERS**

**S.F. Al Ashqar, M. Borths, A. Sileem, S. El-Sayed, E. Seiffert, H.M. Sallam.** THE CRANIUM OF *APTERODON* (HYAINAILOURIDAE, APTERODONTINAE) FROM ONE OF THE YOUNGEST VERTEBRATE-BEARING LOCALITIES (EARLY OLIGOCENE) IN THE FAYUM DEPRESSION, EGYPT

**H.M. Avrahami, T.A. Gates, L.E. Zanno.** A COMPARISON OF BAYESIAN AND PARSIMONY OPTIMALITY CRITERIA FOR THE ANALYSIS OF NEORNITHISCHIAN PHYLOGENIES

**I. Bonilla-Salomón, S. Čermák, Ā. Luján, M. Ivanov, M. Sabol.** THE LATEST RECORDS OF *MELISSIODON DOMINANS* FROM THE EARLY MIOCENE OF MOKRÁ-QUARRY (MORAVIA, CZECH REPUBLIC)—PRELIMINARY RESULTS

**R. Buchmann, T. Rodrigues.** BIOMECHANICS BEYOND BONES: INFERENCES ABOUT THE SOFT TISSUE OF THE PTEROSAUR NECK

**E. Carlisle, D. Silvestro, P. Donoghue.** THE ORIGIN OF PLACENTAL MAMMALS ACCORDING TO THE FOSSIL RECORD



**R. Carr, L.E. Wilson.** ASSESSING THE DISTRIBUTION OF CRANIAL KINESIS AMONG MOSASAUROIDS (SQUAMATA)

**S. Chambi-Trowell, D.I. Whiteside, M. Skinner, M.J. Benton, E.J. Rayfield.** TRICKY TRIASSIC TRILOPHOSAURS: WERE THE REPTILES *TRICUSPISAURUS THOMASI* AND *VARIODENS INOPINATUS* REPRESENTATIVES OF TRILOPHOSAURIDAE IN EUROPE?

**O. Cirilli, L. Pandolfi, L. Rook, R.L. Bernor.** EVOLUTION OF THE OLD WORLD *EQUUS* AND ORIGIN OF THE ZEBRA-ASS CLADE

**A. Demers-Potvin, D. Cortés Parra, H. Bui, A. Smith, H. Larsson, H.P. Street, M. Parra Ruge.** ELASMOSAURIDS THROUGH TIME: A COLLABORATION ACROSS THE AMERICAS

**B.A. Ehrman, J.M. Theodor.** REVISIONS TO THE LATE UINTAN MAMMALS OF THE SWIFT CURRENT CREEK LOCALITY, SASKATCHEWAN

**S. Finch, M. D'Emic.** PATTERNS IN THE SCALING OF AMNIOTE DENTINE APPPOSITION

**G.W. Flora, J.J. Eberle.** DESCRIPTION OF A NEW UINTATHERE SKULL (MAMMALIA, DINOCERATA) FROM THE UINTA FORMATION, PICEANCE CREEK BASIN, COLORADO AND ITS TAXONOMIC IMPLICATIONS

**J. Grimes, R. Terry.** MORPHOLOGICAL VARIATION IN GREAT BASIN HETEROMYIDS: THE ROLE OF BODY SIZE AND DIETARY STRATEGY IN DRIVING MANDIBULAR SIZE AND SHAPE OVER THE LAST 13,000 YEARS

**J.C. Hoeflich, J.I. Bloch.** A TRANSITIONAL DRUM FISH FROM THE LATE MIOCENE OF FLORIDA

**J.C. Johnson.** THE HIGH VALLEY PROJECT: NEW FOSSIL VERTEBRATE LOCALITIES FROM THE WHITE RIVER GROUP OF NORTHEASTERN COLORADO

**J.K. Juranek, K. Shimada.** A NEW MID-CENOMANIAN FISH FAUNA FROM SOUTHEASTERN NEBRASKA, USA

**N. Kim, S. Choi, Y. Lee, S. Zhang.** A RELATIONSHIP BETWEEN EGG SHELL THICKNESS AND MICROSTRUCTURE TO SHOW A POSSIBLE MECHANISM FOR HATCHING OF THICK-SHELLED DINOSAUR EGGS

**D. Landi, L. King, M.E. Kirchner-Smith.** THE CRANIAL ENDOCAST OF *BREAGYPS CLARKI* (AVES: CATHARTIDAE) AND THE EVOLUTION OF CONDOR OLFATORY LOBES

**K. Mata, A. Shiinoki, N. Noriega, J. Cohen, W. Binder.** TOOTH BE TOLD: THE ADVANTAGES OF DIGITAL MEASUREMENTS FOR THE MORPHOMETRIC ANALYSIS OF THREE RANCHO LA BREA CARNIVORES

**P.L. McInerney, T.H. Worthy.** A COMMON AND SEVERE BONE INFECTION IN THE DROUGHT-RIDDEN POPULATION OF THE AUSTRALIAN PLEISTOCENE GIANT, *GENYORNIS NEWTONI* (AVES, DROMORNITHIDAE)

**C.V. Miller, M. Pittman.** THE DIET OF FOSSIL BIRDS AND A NEW FRAMEWORK FOR ITS RECONSTRUCTION

**C. Nicholl, E. Hunt, D. Ouarhache, P. Mannion.** A NEW CROCODYLIFORM FROM THE MID-CRETACEOUS KEM KEM GROUP OF MOROCCO DEMONSTRATES HEIGHTENED DIVERSITY IN THE PEIROSAURID LINEAGE

**A.K. Parker, J. Head.** REPTILE BODY SIZE HISTORIES IN THE TURKANA BASIN: INFLUENCES OF LOCAL HABITAT CHANGE

**A.W. Peng, S.S. Hopkins.** MORPHOLOGICAL AND ECOLOGICAL EVOLUTION IN ASIAN RODENTIA

**W.A. Reyes.** PALEONEUROANATOMY OF THE OTISCHALKIAN STAGONOLEPIDOID AETOSAUR *LONGOSUCHUS MEADEI* (ARCHOSAURIA: PSEUDOSUCHIA) FROM THE UPPER TRIASSIC DOCKUM GROUP OF WEST TEXAS

**A.J. Snyder, E. Snively, K. Brink.** TOOTH BIOMECHANICS USING 2D FINITE ELEMENT ANALYSIS IN *DIMETRODON* (SYNAPSIDA, SPHENACODONTIDAE)

**S. Tada, R. Matsumoto, T. Hanai, Y. Iwami, N. Tomita, T. Tsuihiji.** EVOLUTIONARY PROCESS TOWARD ENDOTHERMY IN DINOSAURIA ELUCIDATED BASED ON NASAL STRUCTURES

**A. Traynor, A.R. LeBlanc, K.D. Angielczyk.** CHANGES IN EMPLACEMENT PATTERN AND ORGANIZATION OF THE PALATAL DENTITION ACCOMPANIED THE EVOLUTION OF HERBIVORY IN EDAPHOSAURIDAE (SYNAPSIDA, EUPELYCOSAURIA)

**M.C. Vallejo-Pareja.** MORPHOLOGICAL VARIATION IN GREENHOUSE FROGS (*ELEUTHERODACTYLUS*, ELEUTHERODACTYLIDAE) AND DIVERSITY IN THE FOSSIL RECORD OF FLORIDA.

**A.R. Zietlow.** *TYLOSAURUS* THROUGH TIME: CLADISTIC ANALYSIS OF ONTOGENY RECOVERED EVIDENCE OF PERAMORPHY-DRIVEN ANAGENESIS IN NORTH AMERICAN TYLOSAURINES

**THURSDAY, NOVEMBER 4, 2021, 1:00PM EDT-2:00PM EDT  
PALEOPATHOLOGY & PALEOHISTOLOGY NETWORKING SESSION**

### **POSTERS**

**E.V. Araújo, R. Bantim, J.M. Sayão, B. Holgado, M. Sena, A.S. Brum, E. I. Souza, L. C. Weinschütz, A.W. Kellner.** THE MICROSTRUCTURE AND SKELETOCHRONOLOGY OF *CAIUAJARA DOBRUSKII* (PTEROSAURIA, PTERODACTYLOIDEA, TAPEJARINAE)

**S. Baag, Y. Lee.** BONE HISTOLOGY ON *KOREACERATOPS HWASEONGENSIS* FROM KOREA

**T. Chinzorig, K.A. Beguesse, G. Phillips, L.E. Zanno.** A PATHOLOGICAL METATARSAL OF A LARGE-BODIED ORNITHOMIMID (DINOSAURIA: THEROPODA) DINOSAUR FROM THE UPPER CRETACEOUS EUTAW FORMATION (UPPER SANTONIAN) OF MISSISSIPPI, U.S.A.

**R.V. Germano, F.H. Barbosa, T. Rodrigues.** PREDOMINANCE OF LUMBAR AND CAUDAL PATHOLOGIES IN THE GIANT GROUND SLOTH *EREMOTHERIUM LAURILLARDI*

**C. Griffin, C. Colleary.** THE OSTEOHISTOLOGY OF HYOID ELEMENTS PRESERVES A RECORD OF GROWTH IN ARCHOSAURS

**H.M. Maddox, S.K. Drumheller, M. Stocker, T.L. Adams, C.R. Noto.** DIFFERENTIATING BITE MARKS AND SHELL DISEASE IN MODERN AND FOSSIL TURTLES USING COMPUTED TOMOGRAPHY

**N.S. Ong, B.J. Hart-Farrar, H. Woodward-Ballard.** OSTEOHISTOLOGICAL DESCRIPTION OF OSTRICH AND EMU LONG BONES, WITH COMMENTS ON POTENTIAL GROWTH MARKS

**N.S. Ong, R.B. Irmis, C.G. Levitt-Bussian.** THE HISTOLOGY OF ORNAMENTED TRIONYCHOID SHELLS FROM THE KAIPAROWITS FORMATION OF UTAH

**C. Sailer, D. Fowler, A.B. Heckert.** EXPLORING THE ONTOGENY AND PALEOBIOLOGY OF THE LATEST CRETACEOUS CHASMOSAURINE DINOSAUR *TRICERATOPS* THROUGH RIB HISTOLOGY

**J. Slowiak, T. Szczygielski.** SHELL HISTOLOGY OF THE TRIASSIC TURTLE, *PROTEROCHERSIS POREBENSIS*, PROVIDES NOVEL INSIGHTS ABOUT SHELL ANKYLOSIS

## TALKS

**C.P. Abbott, K.D. Angielczyk.** TUSKS TELL ALL: INDIVIDUAL GROWTH AND SEASONAL CLIMATE INFERRED FROM THE TUSK OF AN EARLY TRIASSIC *LYSTROSAURUS* (THERAPSIDA, ANOMODONTIA) USING HISTOLOGY AND STABLE ISOTOPE GEOCHEMISTRY

**T. Aureliano, A. Ghilardi, M.A. Fernandes, P. Sander, F. Ricardi-Branco.** AIR SACS ATTACHMENT OR TENDON SCARS? DISTINCTION BETWEEN SOFT TISSUE TRACES IN A TITANOSAUR VERTEBRA

**J. Benoit, L. Norton, C. Browning.** EVIDENCE OF INTRASPECIFIC FACE-BITING IN GORGONOPSIA (SYNAPSIDA, THERAPSIDA)?

**M. Bhat, A. Chinsamy, J. Parkington.** BONE HISTOLOGY AND LIFE HISTORY OF FOSSILISED ANGULATE TORTOISES (TESTUDINES: TESTUDINIDAE) FROM SOUTH AFRICA

**J. Botha, J.N. Choiniere, R.B. Benson.** OSTEOHISTOLOGY OF SOUTH AFRICAN SAUROPODIFORMS PROVIDES INFORMATION ABOUT THE TRANSITION TO SAUROPODAN GROWTH STRATEGIES

**A. Canoville, M.H. Schweitzer, L.E. Zanno.** REEVALUATING PURPORTED MEDULLARY BONE IN SELECT NON-AVIAN DINOSAURS

**B.J. Hart-Farrar, E. Snively, H. Woodward-Ballard.** ORTHOGONAL VASCULAR HISTOLOGY OF GROWTH SERIES IN THE ORNITHISCHIAN DINOSAURS *CENTROSAURUS* AND *MAIASAURA* COMPARED TO THE THEROPOD *GORGOSAURUS*

**E.M. Jevnikar, L.E. Zanno.** BIMODAL TRAJECTORIES AND UNRESOLVED EARLY GROWTH STAGES IN *TYRANNOSAURUS REX* GROWTH

**C. Nacarino-Meneses, A. Chinsamy.** ENAMEL HISTOLOGY AND DENTAL GROWTH IN THE EXTINCT CAPE ZEBRA

**D.J. Simon, D. Evans.** OSTEOHISTOLOGY SUPPORTS IMMATURE ONTOGENETIC STATUS OF NORTH AMERICAN OVIRAPTOROSAURS *APATORAPTOR PENNATUS* AND *CHIROSTENOTES PERGRACILIS*

**J. Slowiak, T. Szczygielski, B.M. Rothschild, D. Surmik.** A HADROSAUROID WITH AGE-RELATED DISEASES BRINGS A NEW PERSPECTIVE ON DINOSAUR SENESCENCE

**R.S. Sombathy, M. D'Emic.** RECONSTRUCTING GROWTH AND BODY SIZE IN *ALLOSAURUS* ACROSS ITS PALEOLATITUDINAL RANGE IN NORTH AMERICA.

**M. Whitney, S. Pierce.** THE COMPARATIVE OSTEOHISTOLOGY OF *GREERERPETON* AND *PROTEROGYRINUS* (TETRAPODA) FROM THE CARBONIFEROUS OF NORTH AMERICA

**L.E. Wilson.** OSTEOHISTOLOGY OF *PROTOSTEGA GIGAS* (TESTUDINES: PROTOSTEGIDAE) REVEALS UNIQUE LIFE HISTORY STRATEGIES

**THURSDAY, NOVEMBER 4, 2021, 2:00PM EDT-2:45PM EDT  
MACROECOLOGY & MACROEVOLUTION NETWORKING SESSION**

**POSTERS**

**E.T. Saitta, L. Carden, P.J. Makovicky.** RELAXING SELECTIVE PRESSURES ON COMPLEX STRUCTURES: FEATHER EVOLUTION AFTER FLIGHT LOSS IN RECENT BIRDS

**TALKS**

**E.R. Bender, T.A. Gates.** COMPARISON OF THE THRESHOLD MODEL AND PHYLOGENETIC GENERALIZED LEAST SQUARES IN CORRELATION ANALYSES OF DISCRETE TRAITS

**J.J. Caledo, T.M. Smiley.** A DATABASE OF RODENT BODY MASS FOR THE END OLIGOCENE THROUGH PLIOCENE

**T.M. Cullen, S. Zhang, J. Spencer, B. Cousins.** STABLE STRONTIUM ANALYSES INDICATE HABITAT USE AND FEEDING DIFFERENCES IN CO-OCCURRING LARGE HERBIVORES IN THE LATE CRETACEOUS OF WESTERN NORTH AMERICA

**M. D'Emic.** EVOLUTION OF BODY MASS IN SAUROPOD DINOSAURS

**N. Freymueller, D. DeMar, C. Dwyer, A. Farnsworth, I. Fendley, K. Gaines, C.P. Hedberg, J.S. Keller, J. Moore, C. Myers, D. Perriguy, R. Rovelli, K. Schroeder, J.S. Silviria, G. Wilson Mantilla, J. Witts.** THE FATE OF THE HELL CREEK TETRAPOD BIOTA: ECOLOGICAL NICHE MODELING REVEALS GEOGRAPHIC AND ENVIRONMENTAL HABITAT CHANGES FOR 106 GENERA ACROSS THE END-CRETACEOUS MASS EXTINCTION

**S. Hellert, G. Lloyd, D. Grossnickle, K.D. Angielczyk, C. Kammerer.** THE INFLUENCE OF ANCESTRAL BODY SIZE ON ECOMORPHOLOGICAL TRENDS IN SYNAPSID RADIATIONS

**C. Hendrickx, N. Brocklehurst, P. Currie, M. Romano.** NON-AVIALAN THEROPOD ECOSPACE DRIVEN BY EXTINCTION EVENTS, ORIGIN OF FLIGHT, AND RADIATION OF FLOWERING PLANTS

**S.S. Hopkins, A.W. Peng.** THE EFFECTS OF ECOSYSTEM CHANGE ON SMALL MAMMAL COMMUNITY ECOLOGY: A HOLARCTIC VIEW

**A.A. Kilmury, K. Brink.** DIVERSITY AND PROPOSED BIOZONES OF VERTEBRATES FROM THE LATE CRETACEOUS WESTERN INTERIOR SEAWAY IN MANITOBA, CANADA

**A. Knapp, G. Rangel, Z. Johanson, S. Giles, M. Friedman, A. Goswami.** HOW TO TUNA FISH: DRIVERS OF DIVERSITY IN PELAGIARIA (TUNAS, MACKERELS AND THEIR KIN)

**T.W. LaBarge, J.D. Gardner, C.L. Organ.** BAYESIAN REANALYSIS OF THE EVOLUTION OF PHORUSRHACIDAE (AVES, CARIAMIFORMES)

**J.K. McMinn, E. Saupe, A. Goswami.** HOW HAS THE BIOGEOGRAPHY OF GONDWANAN MAMMALIAN CLADES VARIED OVER DEEP TIME?

**J.G. Napoli.** THE MISSING DIVERSITY OF THE DINOSAUR FOSSIL RECORD

**M.I. Pardi, M. Greshko, A. Du, J. Louys, L. Yann, R.C. Hulbert, L. DeSantis.** LONG-TERM STABILITY OF INDIVIDUAL DIETARY SPECIALIZATION IN HERBIVOROUS MAMMALS

**L.E. Roberts, J. Head.** MORPHOMETRICS AND EVOLUTIONARY MODELING REVEAL THE COMPLEX EVOLUTIONARY HISTORY OF AXIAL SKELETAL REGIONALIZATION ACROSS ARCHOSAURIA

**L. Schnetz, R.J. Butler, M.I. Coates, I.J. Sansom.** QUANTIFYING THE COMPLETENESS OF THE PALEOZOIC CHONDRICHTHYAN FOSSIL RECORD

**T.M. Seerane, J.N. Choiniere, P. Viglietti, K.E. Chapelle.** DINOSAUR BODY SIZE EVOLUTION ACROSS THE TRIASSIC–JURASSIC BOUNDARY: INSIGHTS FROM SOUTH AFRICA'S ELLIOT FORMATION

**T.R. Simoes, S. Pierce.** DETECTING STRENGTH OF SELECTION AND MOSAIC EVOLUTION DURING THE RISE OF TETRAPODS

**R. Weppe, M. Orliac, G. Guinot, F. Condamine.** EVOLUTIONARY DRIVERS, MORPHOLOGICAL EVOLUTION AND DIVERSITY DYNAMICS OF A SURVIVING MAMMAL CLADE: CAINOTHERIOIDS AT THE EOCENE–OLIGOCENE TRANSITION

**C.H. Woolley, D.J. Bottjer, N. Smith.** THE COMPLETENESS OF THE FOSSIL RECORD OF LIZARDS AND SNAKES: QUANTIFYING THE EFFECTS OF BIAS ON GLOBAL SQUAMATE DIVERSITY THROUGH TIME

**B. Wynd, C. Griffin, S. Nesbitt.** TESTING THE PRESENCE OF ABIOTIC BIOGEOGRAPHIC DRIVERS USING ONLY PHYLOGENY: SUBTROPICAL ARIDITY AS A BARRIER FOR EARLY DINOSAUR DISPERSAL

**THURSDAY, NOVEMBER 4, 2021, 3:00PM EDT-3:30PM EDT  
TURTLES & MARINE REPTILE DIVERSITY & BIOLOGY NETWORKING SESSION**

**POSTERS**

**D. Larson, V.M. Arbour.** MESOZOIC TURTLES (TESTUDINES) FROM THE BOWSER BASIN OF BRITISH COLUMBIA, CANADA

**C.K. Mezak, S. Choi.** USING EBSD FOR THE IDENTIFICATION OF A FOSSILIZED EGG FOUND IN THE MIDDLE JURASSIC TIOURAREN FORMATION OF NIGER, AFRICA

**H.F. Smith, B. Adrian, C.R. Noto, A. Grossman.** A MARINE TURTLE (PROTOSTEGIDAE, CHELONIOIDEA) FROM THE ARLINGTON ARCHOSAUR SITE (CENOMANIAN), TEXAS

**T. Szczygielski.** OBSCURE BY NAME: THE TALE OF THE ENIGMATIC *CHELYTHERIUM OBSCURUM*, THE FIRST DESCRIBED TRIASSIC TURTLE

**TALKS**

**E.L. Bamforth, H.P. Street.** FIRST OCCURRENCE OF A SEA TURTLE (SUPERFAMILY CHELONIOIDEA) FROM THE CAMPANIAN DINOSAUR PARK FORMATION OF SASKATCHEWAN, CANADA

**P. Byrne, M. DeBlois, R. Motani, A. Tintori, O. Rieppel, F. Bernardini, D. Jiang.** A COPROLITE WITH THE FIRST 3D PRESERVED PECTORAL GIRDLE AND FORELIMB OF *KEICHOUSAURUS HUI* (PACHYPLEUROSAURIA; SAUROPTERYGIA) AND ITS IMPLICATIONS ON LOCOMOTION.

**J. Chai, D. Jiang.** REVISION OF *NEOSINASAURUS* AND *WAYAOSAURUS*, AND THE CONSERVATIVE BODY DESIGN OF ASKEPTOSAUROIDEA

**R.O. Clark, F.R. O'Keefe.** AN EXCEPTIONALLY SMALL NEW POLYCOTYLID PLESIOSAUR (REPTILIA: SAUROPTERYGIA) WITH RAPTORIAL EYES FROM THE WESTERN INTERIOR SEAWAY OF NORTH AMERICA

**T. Dudgeon, M. Livius, J. Mallon.** A MORPHOMETRIC ANALYSIS OF THE TURTLE MANUS AND ITS IMPLICATIONS FOR THE PALAEOECOLOGY OF EXTINCT TURTLES

**P. Jiménez-Huidobro, K. Waskow, P. Sander.** LIFE HISTORY TRAITS OF TWO MOSASAUROID SPECIMENS REVEALED BY RIB HISTOLOGY

**R. Motani.** FIVE STEPS OF MARINE ADAPTATION IN NON-AVIAN MARINE TETRAPODS

**R.L. Schmeisser McKean, D.D. Gillette.** UNIQUE PALATE MORPHOLOGY IN A PARTIALLY COMPLETE POLYCOTYLID PLESIOSAUR FROM THE TROPIC SHALE (EARLY TURONIAN) OF SOUTHERN UTAH

**H.P. Street, M. Caldwell, J. MacLeran, R. Bennion, V. Fischer.** A EUROPEAN MOSASAURINE (SQUAMATA: MOSASAURIDAE) WITH AFFINITIES TO A CLADE FROM NEW ZEALAND

**T. Tran, J.F. Parham.** NEW FOSSIL SEA TURTLES FROM THE LATE MIOCENE (TORTONIAN) OF CALIFORNIA INFORM THE EVOLUTION OF FEEDING ECOMORPHOLOGIES

**L.M. Travis Taylor, R. Totten Minzoni, C. Suarez, L.A. Gonzalez, W. Lambert, D.J. Ehret, T. Harrell.** DID MOSASAURS DRINK FRESHWATER? OXYGEN ISOTOPES REVEAL MIGRATION AND CHANGING WATER HABITATS IN THE WESTERN INTERIOR SEAWAY, NORTH AMERICA

**A. Weil, M.W. Colbert, S.H. Weil.** NEW JURASSIC TURTLE FROM THE MORRISON FORMATION OF OKLAHOMA EXTENDS KNOWN MORPHOLOGY OF PLEUROSTERNIDAE

**THURSDAY, NOVEMBER 4, 2021, 3:30PM EDT-4:30PM EDT  
CROCODYLOMORPH & PTEROSAUR NETWORKING SESSION**

### **POSTERS**

**L. Canejo, B. Holgado, E. Wilner, L. Weinschütz, A.W. Kellner.** A REASSESSMENT OF THE CRANIAL ANATOMY OF *CAIUAJARA DOBRUSKII* (PTEROSAURIA, PTERODACTYLOIDEA, TAPEJARIDAE) BASED ON NEW SPECIMENS

**B.S. Salem, H.M. Sallam, W.A. Thabet, S. El-Sayed, M.C. Lamanna.** THE FIRST PTEROSAUR FROM THE UPPER CRETACEOUS (LOWER CENOMANIAN) BAHARIYA FORMATION, BAHARIYA OASIS, WESTERN DESERT OF EGYPT

**K. Salih, M. AbdelGawad.** THE FIRST INVESTIGATION OF CROCODYLIAN REMAINS FROM THE UPPER PLEISTOCENE OF SUDAN

**H.N. Thomas.** THE PHYLOGENY OF AZHDARCHOIDEA (PTEROSAURIA) AND THE RISE OF TOOTHLESS PTEROSAURS

### **TALKS**

**C.A. Brochu.** IF DR. SEUSS MADE AN ANIMAL WITH A WOODWIND INSTRUMENT COMING OUT OF ITS HEAD: THE SYSTEMATICS AND PALEOECOLOGICAL SIGNIFICANCE OF THE HYPER-TUBE-SNOUTED OSTEOLAEMINE CROCODYLID *EUTHECODON* FROM THE LATE CENOZOIC OF AFRICA

**Y. Cho, C. Tsai.** THE HIDDEN DIVERSITY OF *TOYOTAMAPHIMEIA* (CROCODYLIFORMES, CROCODYLIA) FROM THE PLEISTOCENE OF TAIWAN

**A.J. Fitch, B. Bhullar, A.C. Pritchard, J. Bevitt, D.M. Lovelace, S. Nesbitt.** THE FORELIMB OF *ARCTICODACTYLUS CROMPTONELLUS* (PAN-AVES; PTEROSAURIA) AND THE ASSEMBLY OF THE PTEROSAUR WING

**D. Theda, A.H. Schwermann.** PTEROSAUR TRACKS FROM UPPER JURASSIC TIDAL FLAT DEPOSITS OF THE WIEHENGEBIRGE IN NORTHWESTERN GERMANY

**E. Wilberg, P.L. Godoy, E. Griffiths, A.H. Turner, R.B. Benson.** A NEW BASAL THALATTOSUCHIAN CROCODYLIMORPH FROM THE EARLY JURASSIC (PLIENSCHACHIAN) OF DORSET, UK, AND IMPLICATIONS FOR THE ORIGIN AND EVOLUTION OF THE GROUP

**J. Yoshida, A. Hori, Y. Kobayashi, M.J. Ryan, Y. Takakuwa, Y. Hasegawa.** MORPHOLOGY AND ANATOMY OF THE HYOID APPARATUS IN CROCODYLIFORMS: THE ORIGIN OF THE GULAR VALVE IN NEOSUCHIA

**THURSDAY, NOVEMBER 4, 2021, 8:00PM EDT-9:00PM EDT  
HOLOCENE AND PLEISTOCENE MAMMALIAN FAUNAS NETWORKING SESSION**

**POSTERS**

**D. Davey, E. Mueller, L. DeSantis.** OVERSIZED KODIAK ISLAND BEARS: DIETARY BEHAVIOR AND BODY SIZE IN *URSUS ARCTOS* AS REVEALED BY DENTAL MICROWEAR TEXTURES

**M.H. Haji-Sheikh, M. Haji-Sheikh.** A BETTER BITE—THE THIRD DIMENSION IN *SMILODON FATALIS* MANDIBLE RECONSTRUCTION

**M.A. Khan, S.G. Abbas, M.K. Siddiq, M.A. Babar.** PLEISTOCENE PROBOSCIDEANS FROM THE SARDHOK PABBI HILLS, PAKISTAN

**B. Kraatz, O. Bedri, R. Bussert, A. Delagnes, A. Eisawi, I.A. Lazagabaster, M. Mohammednoor, J. Müller, K. Salih, S. Tsukamoto, F. Bibi.** NEW LATE PLEISTOCENE FOSSIL RODENT REMAINS FROM THE MIDDLE ATBARA, SUDAN

**B.F. Kuhn, L. Kgazi, D. Gommery.** A JUVENILE *PANTHERA* FROM X CAVE, BOLT'S FARM, GAUTENG, SOUTH AFRICA

**I.A. Lazagabaster, T.E. Cerling, J. Faith.** A RARE FINDING OF A *HYLOCHOERUS* (MAMMALIA, SUIDAE) TOOTH FROM LATE PLEISTOCENE RUSINGA ISLAND, KENYA: PALEOECOLOGICAL AND PALEOENVIRONMENTAL IMPLICATIONS

**R.L. Nava-Rodríguez, H.R. Sylva, J. Guzmán-Gutierrez, I.E. Sánchez-Uribe, V.G. López-Díaz de León, C.A. López-Palma.** NEW LOCALITY OF PLEISTOCENE FOSSIL VERTEBRATES FROM THE MUNICIPALITY OF JULIMES, CHIHUAHUA, MEXICO

**V.A. Perez-Crespo, V. Bravo-Cuevas, J. Arroyo-Cabrales.** DIETARY BEHAVIOR OF *EQUUS CONVERSIDENS* AND *HARINGTONHIPPIUS FRANCISCI* FROM THE VALSEQUILLO BASIN, LATE PLEISTOCENE OF PUEBLA, MEXICO

**G.A. Rodríguez -Franco, V.A. Perez-Crespo, J. Rodríguez, A. Mateos, E. Cienfuegos-Alvarado.** ISOTOPIC BIOGEOCHEMISTRY OF CARBON, NITROGEN AND OXYGEN IN *URSUS SPELAEUS* FROM CUEVA DE GUANTES (SANTIBÁÑEZ DE LA PEÑA, PALENCIA, SPAIN)

**J. Schap, J. McGuire.** CHANGES IN THE RELATIVE ABUNDANCES OF THE MICROFAUNAL COMMUNITY AT NATURAL TRAP CAVE, WYOMING OVER THE LAST 20,000 YEARS



## TALKS

**D. Balassa, D.R. Prothero, S. Olson.** DID PRONGHORNS BECOME SMALLER AFTER THE ICE AGES?

**F. Bibi, R. Bussert, A. Delagnes, S. Tsukamoto, O. Bedri, B. Kraatz, I.A. Lazagabaster, M. Mohammednoor, J. Müller, K. Salih, A. Eisawi.** NEW MID TO LATE PLEISTOCENE FAUNA AND LITHICS FROM THE MIDDLE ATBARA, SUDAN

**M. Bushell, B. Schubert.** NEW DESCRIPTIONS OF *PANTHERA* REMAINS FROM ARKANSAS CAVE LOCALITIES

**C. Cortes, K. Smith, C. Monroe, N. Czaplewski, B. Postoak, L. Bement.** INVESTIGATING THE GENETIC AND ECOLOGICAL EFFECTS OF HISTORICAL SYMPATRY AMONG WOLF-LIKE CANIDS OF THE SOUTHERN GREAT PLAINS

**A. Kelly, J.H. Miller, L. DeSantis, M. Wooller, G. Zazula.** NICHE STABILITY THROUGH ENVIRONMENTAL CHANGE: A LATE PLEISTOCENE CHRONOLOGY OF *BISON PRISCUS* PALEOECOLOGY FROM YUKON TERRITORY, CANADA

**A. Lister, L. Dalen.** THE ORIGIN OF NEW WORLD MAMMOTHS: MORPHOLOGY MEETS DNA

**J.H. Miller, W. Wright, A. Kelly, B. Neale, M.Q. Gaetano, L. DeSantis, G. Zazula, M. Wooller.** CARNIVORES PREFERRED HORSE IN LATE PLEISTOCENE YUKON

**E. Mueller, M. Abdelmalak, L. DeSantis.** NICHE CONSERVATISM AND DIETARY ECOLOGY OF *DASYURUS* ACROSS SPACE AND TIME

**K. O'Brien, R.B. Irmis, J.B. Coltrain, D.M. Dalmas, T. Evans, E.S. Richards, F.M. Richards, J. Faith.** HIGH-ELEVATION CENSUS OF MONTANE ECOSYSTEMS: ECOLOGICAL IMPLICATIONS FOR QUATERNARY VERTEBRATES FROM BOOMERANG CAVE, UTAH, U.S.A.

**O. Oksanen.** PATTERNS OF RELATIVE ABUNDANCE AMONG LARGE CARNIVORANS IN WESTERN EURASIA DURING THE PLIO-PLEISTOCENE

**S. Olson, R.D. White, D.R. Prothero, D. Balassa, K.L. Marriot, V. Syverson.** ONTOGENETIC GROWTH IN THE PLEISTOCENE PRONGHORN *STOCKOCEROS* FROM SAN JOSECITO CAVE, MEXICO

**K.A. Prassack, L.C. Walkup.** NEW FINDINGS AND TEMPORAL-RANGE EXPANSION OF *FERINESTRIX VORAX* (MUSTELIDAE, MELINAE) AT HAGERMAN FOSSIL BEDS NATIONAL MONUMENT, NATIONAL PARK SERVICE

**FRIDAY, NOVEMBER 5, 2021, 10:00AM EDT-11:00AM EDT  
BIOMECHANICS & FUNCTIONAL MORPHOLOGY NETWORKING SESSION**

**POSTERS**

**S.H. Burch, J. Smith.** MUSCULATURE OF THE BIZARRE FORELIMB OF THE ALVAREZSAURID *MONONYKUS OLECRANUS* (DINOSAURIA: THEROPODA) AND ITS IMPLICATIONS FOR DIGGING

**M. Grohganz, H.G. Ferron, Z. Johanson, P. Donoghue.** TESTING HYPOTHESES ON HETEROSTRACAN FEEDING USING COMPUTATIONAL FLUID DYNAMICS

**E.D. Johnson-Ransom, E. Snively, D. Barta.** BIOMECHANICAL PERFORMANCE OF THE CRANIA OF TYRANNOSAUROIDS AND COMPARATIVE IMPLICATIONS FOR THEROPOD FEEDING

**A. Pérez Ramos, M. Burgos, J. Pastor, B. Figueirido.** A PRELIMINARY STUDY ON THE EFFICIENCY IN LARGE LIVING CATS USING COMPUTATIONAL FLUID DYNAMICS (CFD)

**J. Serrano, J. Garcia-Porta, A. Prieto-Márquez.** HINDLIMB EVOLUTION IN ORNITHOPOD DINOSAURS: A GEOMETRIC MORPHOMETRIC APPROACH

**TALKS**

**P. Bishop, S. Pierce.** A NEW APPROACH TO MUSCULOSKELETAL MODELLING OF LIMB PERFORMANCE AND VERSATILITY IN EXTANT AND EXTINCT VERTEBRATES: A CASE STUDY OF THE SPRAWLING-TO-ERECT POSTURAL TRANSITION

**R.J. Brocklehurst, S. Pierce.** FUNCTIONAL PLASTICITY OF FORELIMB MUSCULATURE AND THE ORIGINS OF PARASAGITTAL POSTURE IN SYNAPSIDA

**D.C. D'Amore, M.B. Habib.** BIOMECHANICAL MODELING INDICATES TOOTH POSITION AND ROSTRUM SHAPE AS MAJOR INFLUENCES ON HETERODONTY IN THEROPODA

**H.G. Ferron, C. Martinez-Perez, I. Rahman, V. Selles de Lucas, H. Botella, P. Donoghue.** A FUNCTIONAL ASSESSMENT OF MORPHOLOGICAL HOMOPLASY IN STEM-GNATHOSTOMES

**J.D. Fortner, C. Holliday.** FUNCTIONAL MORPHOLOGY OF THE INTRAMANDIBULAR JOINT IN DINOSAURS AND OTHER REPTILES

**B.W. Griffin, E. Martin-Silverstone, O.E. Demuth, R. Pégas, C. Palmer, E.J. Rayfield.** PECTORAL AND PELVIC RANGE OF MOTION: CONSTRAINTS ON ORNITHOCHEIRAEAN QUADRUPEDAL LAUNCH

**M.B. Habib, M. Pittman.** GOING UP OR COMING DOWN? *ARCHAEOPTERYX* AS THE EARLIEST KNOWN SECONDARILY FLIGHT-REDUCED VERTEBRATE

**A.R. Manafzadeh, S.M. Gatesy.** PALEOBIOLOGICAL RECONSTRUCTIONS OF ARTICULAR FUNCTION REQUIRE ALL SIX DEGREES OF FREEDOM

**S.K. Pevsner.** FUNCTIONAL TRADE-OFFS IN MULTITUBERCULATE THEORETICAL JAW MORPHOLOGY BETWEEN STRESS RESPONSE AND JAW SPEED

**M. Pittman, L.A. Barlow, T.G. Kaye, M.B. Habib.** PTEROSAURS IMPROVED FLIGHT PERFORMANCE BY EVOLVING ADVANCED AERODYNAMIC SMOOTHING OF THE WING-BODY JUNCTION AND SOPHISTICATED WING BASE CONTROL

**M. Pittman, T. Dececchi, A. Roy, T.G. Kaye, X. Xu, M.B. Habib, H. Larsson, X. Wang, X. Zheng.** AERODYNAMICS SHOW MEMBRANOUS-WINGED SCANSORIOPTERYGID THEROPODS WERE A POOR GLIDING FLIGHT EXPERIMENT

**H.L. Richards, P. Bishop, D. Hocking, J. Adams, A. Evans.** RECONSTRUCTION OF FORELIMB POSTURE AND FUNCTION IN A GIANT EXTINCT MARSUPIAL VIA COMPARATIVE RANGE OF MOTION MAPPING AND HELICAL AXIS ANALYSIS OF THE ELBOW JOINT

**A.J. Rowe, E.J. Rayfield, M.J. Benton, T. Williamson.** ASSESSING SKULL FUNCTION IN TYRANNOSAUROIDS USING 3D FINITE ELEMENT ANALYSIS

**K. Sellers, M.N. Nieto, F.J. Degrange, D. Pol, J.M. Clark, K.M. Middleton, C. Holliday.** THE EFFECTS OF SKULL FLATTENING ON SUCHIAN JAW MUSCLE EVOLUTION

**B. Shipp, K.D. Angielczyk, B.R. Peacock.** THE TOPOGRAPHY OF DIET: USING MOLAR TO PREDICT FEEDING HABITS IN TURTLES

**D. Surmik, J. Slowiak, T. Szczygielski, D. Srodek, M. Wojtyniak, R. Pawlicki.** MULTI-SCALE STUDY OF OSSIFIED TENDONS OF LATE CRETACEOUS ORNITHISCHIANS

**F. Therrien, D. Zelenitsky, J.T. Voris, K. Tanaka.** TIMING OF ONTOGENETIC NICHE SHIFT IN *ALBERTOSAURUS SARCOPHAGUS* AND *GORGOSAURUS LIBRATUS* (TYRANNOSAURIDAE: ALBERTOSAURINAE) INDICATED BY MANDIBULAR BIOMECHANICAL PROPERTIES AND ONTOGENETIC CHANGES IN TOOTH MORPHOLOGY AND BITE FORCE

**H.P. Tsai.** THE DEVELOPMENT OF APPENDICULAR JOINT CARTILAGES IN *ALLIGATOR MISSISSIPPIENSIS*: EVOLUTIONARY AND BIOMECHANICAL IMPLICATIONS FOR ARCHOSAURIA

**P.A. van Bijlert, A. van Soest, K.T. Bates, A.S. Schulp.** EXPLORING WALKING AND RUNNING GAITS OF *TYRANNOSAURUS REX* USING MULTIBODY DYNAMIC SIMULATIONS

**K.K. Voegelé, S. Siegler, M. Bonnan, K. Lacovara.** RECONSTRUCTING ELBOW ARTICULAR CARTILAGE OF THE SAUROPOD DINOSAUR *DREADNOUGHTUS* USING MULTIBODY DYNAMICS AND THE EXTANT PHYLOGENETIC BRACKET

**FRIDAY, NOVEMBER 5, 2021, 1:00PM EDT-1:45PM EDT**

**TAPHONOMY, PALEOENVIRONMENTS, & STRATIGRAPHY NETWORKING SESSION**

### **POSTERS**

**M. AbdelGawad, G. Abu El-Kheir, W. Kassab.** THE VERTEBRATE BEARING HORIZONS IN THE LATE CRETACEOUS IN THE SOUTH WESTERN DESERT, EGYPT

**C.M. Brown.** POTENTIAL PRESERVATION OF KERATINOUS HORN TISSUE ASSOCIATED WITH THE FRILL ORNAMENTATION OF AN IMMATURE *CENTROSAURUS* (ORNITHISCHIA, CERATOPSIDAE)

**A.S. Brum, E.V. Araújo, G.A. Souza, A.C. Miceli, B. Bulak, L. Farias, M.B. Soares, J.M. Sayão, A.W. Kellner.** TAPHONOMIC ASPECTS OF VERTEBRATE FOSSIL OCCURRENCES FROM THE UPPER CRETACEOUS DEPOSITS OF THE JAMES ROSS BASIN (ANTARCTICA)

**S. Choi, N. Kim, H. Kim, J. Kweon, S. Lee, S. Zhang, D. Varricchio.** *IN SITU* PRESERVATION OF ARAGONITE IN A TURTLE EGG FROM THE JUDITH RIVER FORMATION (CAMPANIAN) OF MONTANA

**W.J. Freimuth, R.T. Tucker, L.E. Zanno.** INTEGRATED SEDIMENTOLOGY, VERTEBRATE FOSSILS, AND COPROLITES PROVIDE PALEOENVIRONMENTAL CONTEXT TO THE “LAST CHANCE THEROPOD” LOCALITY, MUSSERTUCHIT MEMBER, CEDAR MOUNTAIN FORMATION, UTAH, USA

**S.J. Godfrey, A. Lowry.** MULTIPLE SHARK BITE-SHAKE TRACES ON A MIOCENE BALEEN WHALE RADIUS EVIDENCE SCAVENGING

**A.B. Heckert, I. Pugh, S. Ahmed, J. Crothers, J. Meyer, L. Rose, B. Lauer, R. Lauer, S. Nesbitt, M. Stocker.** PRELIMINARY TAPHONOMIC ASSESSMENT OF THE HOMESTEAD SITE, A NEW REVUELTIAN (UPPER TRIASSIC: MID–LATE NORIAN) MICROVERTEBRATE ASSEMBLAGE FROM EAST–CENTRAL NEW MEXICO: RECONSTRUCTING AN ASSEMBLAGE FROM INCOMPLETE DATA

**H. Maisch, M. Becker, V. Perez, K. Shimada.** ELASMOBRANCHS FROM THE PEACE RIVER AND TAMIAMI FORMATIONS (MIOCENE-PLIOCENE) ON THE SUBMERGED CONTINENTAL SHELF NEAR VENICE, FLORIDA, USA

**G. Panascí, D. Varricchio, R. Hirayama, S. Choi, J.P. Wilson, T. Dyman.** VERTEBRATE PALEONTOLOGICAL RECORD OF THE NON-MARINE CENOMANIAN-SANTONIAN FRONTIER FORMATION OF SOUTHWESTERN MONTANA

**B.M. Rothschild, L. Biehler-Gomez.** SKELETONS AND STONES: BIOLOGICAL CONCRETIONS IN THE FOSSIL RECORD.

**A.B. Shaffer, L. Vietti.** DEPOSITIONAL ENVIRONMENT AND TAPHONOMIC INTERPRETATIONS OF AN EOCENE BRIDGER FORMATION SITE (WYOMING) CONTAINING CROCODYLOID AND *ECHMATEMYS* MATERIAL

**H.R. Sylva, R.M. Avila-Hernandez, A.M. Czaja.** VERTEBRATE PALEOFAUNA FROM A NEW LOCALITY OF THE CERRO DEL PUEBLO FORMATION (CAMPANIAN) IN COAHUILA, MEXICO

## **TALKS**

**C. Badgley, F. Hardy, K. Kravitz, B. Yanites.** IS MONTANE MAMMAL DIVERSITY CAPTURED IN THE FOSSIL RECORD?

**S.K. Drumheller, C.A. Brochu, G. Tekle, T. Getachew.** I LOVE LUCY, FOR DINNER: CROCODYLIAN BITE MARKS AND THE CHALLENGES OF EQUIFINALITY IN THE HOMININ-BEARING HADAR FORMATION OF ETHIOPIA

**M.Q. Gaetano, J.H. Miller, E.J. Wald, P. Druckenmiller.** A GNAWING QUESTION: EVALUATING TAXON-SPECIFIC BONE MODIFICATION IN AN ARCTIC ECOSYSTEM

**A. Roy, M. Pittman, M. Musa, S. Al-Kindi, T.G. Kaye, E.T. Saitta.** SEDIMENT-ENCASED PRESSURE-TEMPERATURE MATURATION ELUCIDATES THE NATURAL DIAGENESIS OF POLYENE-DERIVED AVIAN PIGMENTS

**H.E. Smith.** TAPHONOMY AND SITE FORMATION HISTORY OF VERTEBRATE-BEARING BRECCIA IN THE CAVES OF SUMATRA

**J. Wiemann, D.E. Briggs.** MOLECULAR COMPOSITION DETERMINES BIASES IN THE FOSSIL RECORD OF VERTEBRATE SOFT TISSUES

**E. Wolff, I. Perea, J. Moore.** THE TAPHONOMY AND PATHOLOGY OF DEATH POSE IN ARCHOSAURS

**FRIDAY, NOVEMBER 5, 2021, 1:45PM EDT-2:30PM EDT  
QUANTITATIVE PALEONTOLOGICAL METHODS NETWORKING SESSION**

**POSTERS**

**E. Vollmer, B.R. Peacock, L. Tapanila, J. Pruitt.** 3D SURFACE SCANNING AND DIGITAL 3D RETRO DEFORMATION OF TIKTAALIK ROSEAE FOR MUSEUM EXHIBITION

**TALKS**

**P.Z. Barrett, S.S. Hopkins.** SOPHISTICATED EVOLUTIONARY MODELS ON MORPHOLOGICAL DATA HAVE A HIGH IMPACT IN BAYESIAN PHYLOGENIES; A TEST CASE WITH THE FELIFORMIA (CARNIVORA).

**K.A. Beguesse, A. Canoville, E. Hyland, C. Walker, L.E. Zanno.** A NOVEL APPROACH FOR DISCRIMINATING MEDULLARY FROM PATHOLOGIC BONE IN EXTANT AND EXTINCT ARCHOSAURS

**M.M. Bradley-Cronkwright, A.D. Anaya, E. Fulwood, R. Ravier, J. Winchester, I. Daubechies, D.M. Boyer.** AN AUTOMATED APPROACH TO STUDYING THE EVOLUTION OF THE PARACONID CUSP IN A COMPREHENSIVE SAMPLE OF FOSSIL AND EXTANT EUARCHONTA

**T. Buskuskie, J. McHugh.** OH, THE MAP IS UPSIDE DOWN: IMPORTANCE OF STANDARDIZING AND COMMUNICATING MAPPING PROCEDURES FOR PALEONTOLOGY QUARRIES

**T.A. Gates, H. Cai, Y. Hu, X. Han, E. Griffith, L. Burgener, E. Hyland, L.E. Zanno.** MODEL-DISCRIMINATION INFERENCE IN THE BIOGEOGRAPHIC DISTRIBUTION OF EXTINCT BIOTAS

**A.S. Hall, J. Bevitt, U. Garbe, J.F. Hunter, R. Nelson, T. Williamson.** NEUTRON IMAGING FOR PALEONTOLOGY

**J. Hedge, L.E. Zanno.** QUANTITATIVE MEASURES OF EXTERNAL ORNAMENTATION IN AVIAN AND DINOSAURIAN EGGSHELL USING A NOVEL APPLICATION OF ORIENTATION PATCH COUNT ROTATED

**J. McHugh, S.K. Drumheller, M. Kane, A. Riedel.** SUBSAMPLING VERTEBRATE FOSSILS AS DIGITAL FRAGMENTS CAN ASSESS COLLECTIONS FOR BIASES AGAINST TAPHONOMIC DATA

**S.M. Van Ningen.** UTILIZING EXISTING MUSEUM COLLECTIONS AND GIS FOR PALEONTOLOGICAL SITE ASSESSMENT AND MANAGEMENT

**S. Wright, L. Vietti, M. Clementz.** AUTOMORPH: A SOFTWARE PACKAGE WITH POTENTIAL FOR AUTOMATED IDENTIFICATION OF FOSSIL MAMMAL TEETH

**FRIDAY, NOVEMBER 5, 2021, 3:00PM EDT-4:00PM EDT  
DINOSAUR SYSTEMATICS, DIVERSITY, & BIOLOGY NETWORKING SESSION**

**POSTERS**

**S.R. Carpenter, M.A. Loewen, J.J. Sertich, A.A. Farke.** THE PHYLOGENETIC PLACEMENT OF TWO NEW SPECIES OF CERATOPSIDIAN DINOSAUR FROM THE CAMPANIAN WAHWEAP FORMATION ALLOW FOR NEW INSIGHT ON CERATOPSIDIAN EVOLUTION

**B. Curtice.** NEW DRY MESA DINOSAUR QUARRY *SUPERSAURUS VIVIANE* (JENSEN 1985) AXIAL ELEMENTS PROVIDE ADDITIONAL INSIGHT INTO ITS PHYLOGENETIC RELATIONSHIPS AND SIZE, SUGGESTING AN ANIMAL THAT EXCEEDED 39 METERS IN LENGTH

**J.E. D'Angelo.** A MAZE OF *OMEISAURUS*: OBSERVATIONS ON THE TAXONOMIC STATUS OF *OMEISAURUS JUNGHSIENSIS* (DINOSAURIA: SAUROPODA: MAMENCHISAUROIDEA)

**A. Ghilardi, T. Aureliano, P. Buck, B. de Campos Pimenta e Marques Peixoto, M.A. Fernandes.** REASSESSMENT OF THE LOWER CRETACEOUS SOUSA MEGATRACKSITE IN THE BRAZILIAN OUTBACK

**E. Gorscak, P. O'Connor.** NEW TITANOSAURIAN SAUROPOD DINOSAUR FOSSILS FROM EASTERN AFRICA: EMERGING INSIGHTS FROM THE CRETACEOUS GALULA FORMATION OF TANZANIA AND REGIONAL FAUNAL PATTERNS ACROSS A CONTINENTAL SCALE

**M.N. Hudgins, P. Currie, R. Sissons, C. Sullivan.** POSTCRANIAL AUTAPOMORPHIES AND A NEW OCCURRENCE OF *PARKSOSAURUS WARRENI* (DINOSAURIA: ORNITHISCHIA) IN THE HORSESHOE CANYON FORMATION

**F. Knoll.** A CAUDALLY-DIVERTED VAGAL CANAL IS A POTENTIAL ORNITHOSCELIDAN SYNAPOMORPHY

**Y. Kobayashi, R. Takasaki, K. Kubota, A.R. Fiorillo.** A NEW BASAL HADROSAURID (DINOSAURIA: ORNITHISCHIA) FROM THE LATEST CRETACEOUS KITA-AMA FORMATION IN JAPAN ILLUMINATES THE ORIGIN OF HADROSAURIDS

**N.E. Morley, M.N. Hudgins, P. Currie, F. Han, C. Sullivan.** A MORPHOMETRIC ANALYSIS OF DENTAL VARIATION THROUGHOUT ONTOGENY IN *JEHOLOSAURUS SHANGYUANENSIS* (DINOSAURIA, ORNITHISCHIA) AND IDENTIFICATION OF TEETH FROM MICROSITES

**A. Prieto-Marquez, R. Gaete, J. Serrano Pérez, J.R. Wagner.** FIRST REMAINS OF THE CRANIAL CREST OF A LAMBEOSAURINE DINOSAUR FROM THE LATEST CRETACEOUS OF EUROPE, AND AN EVALUATION OF TSINTAOSAURINI

**M.J. Roloson, E.L. Bamforth, J. Scannella, J. Mallon.** *TRICERATOPS* FROM THE UPPERMOST MAASTRICHTIAN FRENCHMAN FORMATION OF SOUTHERN SASKATCHEWAN, AND IMPLICATIONS FOR THE ANAGENESIS HYPOTHESIS.

**R. Takasaki, K. Chiba, A.R. Fiorillo, K. Brink, D. Evans, S. Ishigaki.** A NEW LAMBEOSAURINAE (DINOSAURIA, HADROSAURIDAE) SPECIMEN FROM THE UPPER CAMPANIAN JUDITH RIVER FORMATION WITH ITS BIOGEOGRAPHIC IMPLICATIONS

**N. Wakimizu, T. Tsuihiji.** COMPARATIVE STUDY ON THE ROSTRAL ENDOSKELETAL MORPHOLOGY OF THE TRIGEMINAL NERVOUS SYSTEM IN EXTANT ARCHOSAURS

**P.J. Wilson, L. King, M. Doughty.** A NEW LATE CRETACEOUS NODOSAURID (THYREOPHORA: ANKYLOSAURIA) FROM THE CAMPANIAN JUDITH RIVER FORMATION OF NORTHERN MONTANA

## **TALKS**

**L.W. Bradley.** DINOSAURS AND INDIANS: FOSSIL RESOURCE DISPOSSESSION OF SIOUX LANDS, 1846-1875.

**A.A. Chiarenza, M. Fabbri, L. Consorti, M. Muscioni, D. Evans, F. Fanti.** UNFOLDING THE PALEODIVERSITY, AGE AND PALEOECOLOGY OF THE FIRST MULTI-INDIVIDUAL DINOSAUR-BEARING LOCALITY OF ITALY

**D.R. Dunfee, R.C. Ridgely, M.C. Lamanna, L. Witmer.** THE BRAINCASE OF A VERY YOUNG INDIVIDUAL OF THE EARLY-DIVERGING IGUANODONTIAN *DRYOSAURUS ELDERAE* (DINOSAURIA: ORNITHOPODA) FROM THE UPPER JURASSIC MORRISON FORMATION OF UTAH: ONTOGENETIC IMPLICATIONS

**J. Foster, M.J. Wedel, B. Engh, R.K. Hunt-Foster, Y. Haridy, J.I. Kirkland.** GEOLOGICALLY OLDEST SPECIMEN OF *BRACHIOSAURUS* (SAUROPODA) FROM THE SALT WASH MEMBER OF THE MORRISON FORMATION, SOUTHERN UTAH

**K. Melstrom, L. Chiappe, N. Smith.** EXCEPTIONALLY SIMPLE, RAPIDLY REPLACED TEETH IN SAUROPOD DINOSAURS DEMONSTRATE A NOVEL APPROACH TO HERBIVORY IN LATE JURASSIC ECOSYSTEMS

**J. Park, Y. Lee, Y. Kobayashi, L.L. Jacobs, R. Barsbold, H. Lee, N. Kim, K. Song, M.J. Polcyn.** A NEW SPECIMEN OF *TARCHIA GIGANTEUS* FROM THE UPPER CRETACEOUS NEMEGT FORMATION OF MONGOLIA, WITH EVIDENCE OF AGNOSTIC BEHAVIOR AND NICHE SHIFTS IN ARMORED DINOSAURS

**O. Regalado Fernandez, I. Werneburg.** EVALUATION OF THE MORPHOLOGICAL DIVERSITY OF '*PLATEOSAURUS*' FROM THE TROSSINGEN BEDS, GERMANY

**FRIDAY, NOVEMBER 5, 2021, 4:00PM EDT-4:45PM EDT  
EDUCATION & OUTREACH NETWORKING SESSION**

**POSTERS**

**T. Aureliano, A. Ghilardi.** 'DINO HAZARD': A FRANCHISE TO UNITE ENTERTAINMENT, SCIENCE EDUCATION, AND SOCIAL IMPACT

**B.H. Breithaupt, N. Matthews, R.K. Hunt-Foster, H.G. McDonald, M.G. Lockley.** CHASING THEROPODS ACROSS AN EARLY JURASSIC SAND SEA: OPPORTUNITIES FOR YOUNG CITIZEN SCIENTISTS TO HELP DOCUMENT, INTERPRET, AND MANAGE AN ANCIENT TRACKSITE IN THE NAVAJO SANDSTONE

**B.B. Britt, N. Ortiz.** IMPACT OF EXPERIENTIAL VIRTUAL DINOSAUR EXCAVATION ASSIGNMENTS ON EXAM PERFORMANCE IN AN INTRODUCTORY, UNIVERSITY-LEVEL COURSE ON DINOSAURS

**S. Frigerio, L. Rolleri, J. Rassau, L. Speer, M. Haag, M. Fisk.** DINOSAURS ARE FOR EVERYONE: IMPLEMENTING ACCESSIBLE PREHISTORIC PROGRAMMING IN INFORMAL LEARNING INSTITUTIONS FOR DEAF AND HARD OF HEARING STUDENTS

**A. Ghilardi, T. Aureliano.** BROADCASTING PALEONTOLOGY: YOUTUBE AS A SCIENCE COMMUNICATION AND SOCIAL INTERACTION TOOL DURING PANDEMIC TIMES

**M.F. Guenther.** INCORPORATING VISION AND CHANGE CORE CONCEPTS AND COMPETENCIES INTO AN UPPER-LEVEL UNDERGRADUATE PALEONTOLOGY COURSE

**A.K. Hastings, C. Vargas-Vergara, S. Corbin, M. Ziegler.** TRACKING DINOSAUR FOOTPRINTS: USING 3D DIGITAL FOSSIL TRACKS IN STEM LESSONS

**T.J. Lepore, L. Hlusko.** INCLUSIVE DESIGN HELPS MORE STUDENTS FEEL INCLUDED IN ONLINE UNDERGRADUATE STEM AND PALEONTOLOGY COURSES

**T. Rodrigues, E. Nascimento, S. Lima, L. Souza, T. Nascimento, T. Souza, E. Holanda, A. Figueiredo, P. Dentzien-Dias, A. Hsiou.** DEMOGRAPHIC PROFILE OF BRAZILIAN VERTEBRATE PALEONTOLOGISTS

**T.M. Ruppert.** CAPTURING CURIOSITY: ADULT VISITOR ENGAGEMENT AT THE STERNBERG MUSEUM FOSSIL PREP LAB

**N. Smith, A. Celestian, a. gusick, A. Hendy, C. Thacker.** ACTIVATING COLLECTIONS FOR STUDENT RESEARCH AND EDUCATION: THREE YEARS OF RESULTS FROM THE NATURAL HISTORY MUSEUM OF LOS ANGELES COUNTY STUDENT COLLECTIONS STUDY AWARD



**A. Torices, A.I. Guzman Morales.** ILLUMINATING SCIENCE: WOMEN PALEONTOLOGISTS AND ILLUSTRATORS

**TALKS**

**A.K. Behrensmeyer, M. Morgan, J. Csotonyi, C. Badgley, B. Jacobs, L. Flynn, J. Head.** SCIENCE-INFORMED ARTISTIC RECONSTRUCTIONS OF MIOCENE FAUNAS AND ECOSYSTEMS IN SOUTHERN ASIA

**A. Berta, S. Turner.** REBELS, SCHOLARS, EXPLORERS: WOMEN IN VERTEBRATE PALEONTOLOGY