

List of Authors and Abstract Titles in Chronological Session Order

Wednesday Morning, November 12, 2025

Symposium: Synchrotron Radiation Micro-CT Scanning in Paleontology

Meeting Room Hall 1

Moderators: Kimi Chapelle and Zoe Kulik

- 8:00 **K. Dollman, V. Fernandez** Advancing natural heritage research through synchrotron X-ray imaging: applications, innovations, and future directions
- 8:15 **Y. Haridy, N. Shubin** Ordovician vertebrates and the origin of bone remodeling
- 8:30 **H.M. Byrne, E. Pedersen, R. Dearden, Z. Johanson, J. Leyhr, K. Dollman, M. Dean, T. Haitina, S.J. Sanchez, M. Rücklin** The evolution of tessellated calcified cartilage in fossil chondrichthyans
- 8:45 **D. Chen, R. Sheng, P.E. Ahlberg, G. Niedzwiedzki, H. Blom, M. Qvarnström, D. Snitting, J. Marshall** 3D visualization of the chondrocytes and osteoblasts repairing the gastralia in the structurally preserved skin of a new Devonian stem tetrapod
- 9:00 **X.A. Jenkins, V. Buffa, C.J. Marchant, D. Ford, C. Browning, V. Fernandez, K. Dollman, J. Choiniere, R.B. Benson, B.R. Peacock** A new late Permian younginid bearing a tympanic fossa clarifies the cranial evolution of Neodiapsida
- 9:15 **G.A. McGaughey, X.A. Jenkins, T.M. Scheyer, N. Klein, R.B. Benson, B.R. Peacock** Cranial osteology and evolutionary relationships of the Middle Triassic pachypleurosaur *Neusticosaurus edwardsii* revealed through high resolution synchrotron radiation micro-computed tomography scanning
- 9:30 **K. Chapelle, K. Dollman, A.H. Turner, B.M. Weiss, V. Fernandez, J. Choiniere** Synchrotron scanning reveals a diversity of small-sized vertebrates in one of the world's oldest known dinosaur nesting sites
- 9:45 **L. Mukwevho, J. Choiniere, R.B. Benson, J. Botha, K. Chapelle** Synchrotron histology of Norian theropod from the Elliot Formation of South Africa
- 10:00 Coffee Break
- 10:15 **K.D. Obuszewski, J.G. Napoli, M. Drakopoulos, N.T. Vo, Z. Zhong, L.E. Zanno** Contrasting conventional with synchrotron-based μ CT in North America's oldest ceratopsian
- 10:30 **C. Ciou, T. Yang, C. Yao, S. Hong, Q. Zhao, B. Liang, C. Wang** A new insight into the linkage between osteocyte lacunae morphologies and flight behaviors in Paraves revealed by synchrotron X-ray nano-CT
- 10:45 **A. Canoville, J. Anné, L.E. Zanno** Testing controversial reports of avian reproductive tissues in the fossil record using a synchrotron-based multidisciplinary approach
- 11:00 **E. Panciroli, L.N. Weaver, E. Newham, G.F. Funston, R.B. Benson, V. Fernandez, K. Dollman, Z.T. Kulik, Z. Luo** Birth and growth in Jurassic mammals: synchrotron data from Scottish fossils provide life history insights
- 11:15 **Z.T. Kulik, F. Mao, R.B. Benson, L.N. Weaver, K. Dollman, J. Meng** Bone histology and synchrotron X-ray tomography provide the first glimpse into euharamiyidan life history
- 11:30 **J.M. Shiffert, E. Panciroli, E. Newham, G.F. Funston, Z.T. Kulik, R.B. Benson, M. Whitney, K. Dollman, L.N. Weaver** Bone histology of therian mammals from the Upper Cretaceous Bissekty Formation of Uzbekistan, with implications for the marsupial-placental dichotomy
- 11:45 **S.J. Sanchez** Synchrotron X-ray based virtual paleo-microanatomy and histology: a new dimension to reveal fossil bone inner structure

Wednesday Morning, November 12, 2025

Technical Session I: Dinosauria I: Ornithischia & Theropoda

Meeting Room Hall 4

Moderators: Chun-Chi Liao and Gorm Raun

- 8:00 **J. Alexander, P.J. Currie, E.B. Koppelhus** Not like other hadrosaurids: a review of growth rates and age segregation in *Edmontosaurus regalis* (Dinosauria: Hadrosauridae)
- 8:15 **H. Bert, H. N. Woodward, N. Rinder, R. Amiot, J.R. Horner, C. Lécuyer, M. Sena, J. Cubo** Assessing the degree of necessity for parental care in the hadrosaurid dinosaur *Maiasaura* based on its neonatal metabolic rate estimates

- 8:30 D.A. Hoffman, A.A. Brink, G. Phillips, L. King, J. Starnes, N. Baghai-Riding, C. Hotton, O. Pharr, A. Prieto-Marquez** Comparative anatomy, morphometric analysis, and phylogenetic systematics of the Booneville hadrosaurid (early–middle Campanian Coffee Formation, Mississippi, USA)
- 8:45 J. Yoshida, C. Tsogtbaatar, R. Takasaki, L.E. Zanno** Structural mechanics of the earliest dome-headed dinosaur, and the origin of the unique cranial structure
- 9:00 S. Maidment, R. Butler, S. Brusatte, L. Meade, F.J. Augustin, Z. Csiki-Sava, A. Osi** Ceratopsian dinosaurs were widespread in the Upper Cretaceous of Europe
- 9:15 C.R. Scherer, L. Durrant, C. Boisvert, A. Danison, C. Morrison** A reappraisal of *Metriacanthosaurus parkeri* from the Middle-Upper Jurassic Oxford Clay Formation of England and the evolutionary relationships of allosauroid theropod dinosaurs
- 9:30 J. Frewin, B. Britt, R. Scheetz** New evidence of a large theropod dinosaur in the Yellow Cat Member (Barremian) of the Cedar Mountain Formation, Utah, USA
- 9:45 R. Delcourt, O.N. Grillo, C. Hendrickx, M.C. Langer** Reassessing the anatomy and affinities of *Mirischia asymmetrica* (Theropoda: Coelurosauria) from the Early Cretaceous of Brazil
- 10:00** Coffee Break
- 10:15 G.F. Funston, T. Dudgeon, D. Simon, D. Dufault, C.A. Boyd, D. Fowler, P.J. Currie, D. Evans** A remarkably complete caenagnathid (Dinosauria: Oviraptorosauria) skull reveals specializations for herbivory and potentially frugivory
- 10:30 W.J. Freimuth, J.R. Lively, G.M. Erickson, L.E. Zanno** Osteohistology and population biology of two therizinosaurian bonebeds
- 10:45 C. Liao, Z. Qin, L. Meade, X. Xu, S. Lautenschlager** Head to herbivore: new evidence for cranial functional evolution in early-branching therizinosaurs
- 11:00 J. McKee, R. Irmis** First associated ornithomimid (Theropoda, Coelurosauria) skeleton from the Upper Cretaceous Straight Cliffs Formation of southern Utah, USA
- 11:15 L. Norris** Implications for feeding behavior in Upper Cretaceous albertosaurines based on stable calcium isotopes ($\delta^{44/40}\text{Ca}$) from tooth enamel
- 11:30 G.S. Raun, H.S. Sharpe, P.J. Currie** The apple doesn't fall far from the tree: *Tarbosaurus* has stable discrete characters through ontogeny
- 11:45 L.E. Zanno, J.G. Napoli** 'Dueling' tyrannosaur confirms the validity of *Nanotyrannus*
- 12:00 J.G. Napoli, L.E. Zanno** Parallelism and predisplacement in the assembly of the tyrannosaurid bodyplan

Wednesday Morning, November 12, 2025
Technical Session II: Paleozoic Fishes
Meeting Room Hall 8
Moderators: Zhikun Gai and Merle Greif

- 8:00 S. Coatham, M.E. Rosti, A. Pradel, I.J. Sansom, L. Sallan** Swimming in early vertebrates: exploring the hydrodynamics of *Sacabambaspis*
- 8:15 L. Schnetz, R. Dearden, A. Lanzetti, A.S. Jones, P. Andreev, K. Dollman, V. Fernandez, S. Giles, S. Lautenschlager, I.J. Sansom** Synchrotron scanning of *Doryaspis arctica* reveals an exceptionally preserved heterostracan feeding apparatus
- 8:30 R. Sansom, E. Randle, J.N. Keating** A phylogeny for Heterostraci (stem gnathostomes)
- 8:45 Z. Gai, M. Zhu, P. Donoghue** The anatomy of galeaspids (stem-gnathostomes) and its evo-devo implications
- 9:00 M.D. Brazeau, Z. Chen, Z. Johanson, P. Jones, J.B. Pears** Evolution of the gnathostome head: jaws and girdles from a paleontological perspective
- 9:15 Y. Zhu, M. Zhu** Diversity of Silurian maxillate placoderms: insights from historical and recent discoveries
- 9:30 M. Greif, H. Botella, T.M. Scheyer, C. Klug** Diversity of tooth mineralization sequences and histological patterns at the stem of crown chondrichthyans

- 9:45 **C. Klug, M. Greif, A. Pohle, M.S. Ginter, M. Coates, W. Bel Haouz, A. Lagnaoui, L. Frey** The face of the oldest elasmobranch *Phoebodus* from the Moroccan Devonian
- 10:00 Coffee Break
- 10:15 **T.B. Babcock, L. Tapanila** A redescription of the holotype of the eugeneodontid *Sarcoprion edax* using CT scanning and 3D modeling to examine jaw morphology and function
- 10:30 **P. Andreev, Q. Li, W. Zhao, J. Wang, F. Marone, M. Rücklin, M. Zhu** Tooth patterning in the earliest osteichthyan
- 10:45 **R. Vakruchev, S. Bijl, A. Clement, P. Tafforeau, J.A. Long, K. Trinajstić, S.J. Sanchez** Long bone development in the stem tetrapod *Gogonasus*
- 11:00 **J. Mondéjar Fernández, D. Davesne, A. Clement** The stem-tetrapod *Glyptopomus kinnairdi*: redescription and phylogenetic implications close to the ‘fish-tetrapod transition’
- 11:15 **C. Strong, S.E. Pierce** Evaluating trends in mandibular form and function across vertebrate water–land transitions
- 11:30 **M. Ruta, T.R. Smithson** The Tournaisian tetrapod *Diploradus austiumensis* (Ballagan Formation, Scotland) and the shape of the tetrapod stem
- 11:45 **A. Caron, M. Coates** Chondrosteian signal within the early actinopterygian record
- 12:00 **Z.J. Lyons-Weiler, S. Giles, M. Friedman** Unexpected characters in a Pennsylvanian ray-finned fish

Wednesday Afternoon, November 12, 2025
Technical Session III: Carnivora
Meeting Room Hall 1
Moderators: Jamie MacLaren and Lucy Roberts

- 1:45 **H.G. Schmökel, M.R. Sánchez-Villagra, A. Urciuoli, F. Del Chicca, R. Hagen Argudin Pina, A. Farrell** Affected by nearing extinction: congenital pathologies in dwindling populations of the saber-toothed cat *Smilodon fatalis* and the dire wolf *Aenocyon dirus*
- 2:00 **L. Werdelin, T. Flink, J. Lagerström, Y. Sahle** When did spotted hyenas become social? Evidence from fossil endocasts
- 2:15 **L.E. Roberts, J. Charles, E. Comerford, K.T. Bates, A. Goswami** From dachshunds to dire wolves: Landmark free morphometrics reveals extreme shape variation in the appendicular skeleton of canids
- 2:30 **A.W. Poust, S. Tucker, S. Matson, R. Otto** Post-disaster signs of life: caniform tracks at Ashfall Fossil Beds suggest scavenging and survival
- 2:45 **Z. Tseng, C. Grohé, B. DesRocher, E. Waldman, J.J. Flynn** Emergent network properties link phenotypic modules to ecomorphological divergence in the skulls of carnivoran mammals
- 3:00 **G. Billet, L. Hautier, T.J. Gaudin, J.J. Flynn, I. Ruf, S. Ladeveze, C. Tornero, N.M. Wong, P. Gaubert** Unlocking phylogenetic signal: a remarkable network of diploic veins in pangolin and carnivoran crania
- 3:15 **N. Chatar, M. Vankelst, A. Pérez Ramos, T.I. Pollock, D. Tamagnini, M. Michaud, L.Y. Raskin, Z. Tseng** Supertooth: slicing, crushing, and the limits of carnassial design
- 3:30 **K. Jones, B. Figueirido, J.A. Schwab** What use is a vertebra? Understanding the ecomorphological utility of isolated serial elements
- 3:45 **J.A. MacLaren, I. Boutsen, N. Chatar, E. Annear** Experimental investigation into the physical feeding envelope of saber-toothed felids (Felidae: Machairodontinae) from the Pliocene–Holocene of Africa
- 4:00 **J.P. Rule, S. Ryan, U. Ishihara, S.M. Palmer, D. Hocking, L. Paterson-Crisp, T.I. Pollock, W.M. Parker, F.G. Marx, A.R. Evans** The origin of toothed filter feeding in seals

Wednesday Afternoon, November 12, 2025
Technical Session IV: Lepidosauria
Meeting Room Hall 4
Moderators: Georgios Georgalis and Fatima Iftikhar

- 1:45 **D. Marke, D.I. Whiteside, T. Sethapanichsakul, R. Coram, V. Fernandez, A. Liptak, E. Newham, M.J. Benton** Expected and unexpected features of the oldest crown lepidosaur
- 2:00 **M. Bianchin, A. LeBlanc, M.E. Jones** Evolution, development and function of tubular enamel in monophyodont reptiles
- 2:15 **F. Iftikhar, M. Caldwell, A. LeBlanc** Tooth attachment and replacement in mosasaurs: new insights from dental histology in modern teiid lizards
- 2:30 **J.A. Sargent, L. Ekstein, R.C. Fish, R. Garavito-Camacho, D. Suyom, A. Ben-Salahuddin, M. Stevens, J.H. Moore, L. King, K.L. Koeller** Convergence of sensory anatomy in fossorial, limbless lizards: olfactory bulb size correlates to ecology in squamates
- 2:45 **A. Howard, J. Head** Fossorial ecomorphologies in the skull roof of extant and fossil snakes revealed by geometric morphometrics
- 3:00 **L. Dong, S. Evans** Late Cretaceous anguimorphs from East Asia suggest a complex evolutionary history for the group
- 3:15 **G. Georgalis** Slightly before the collapse—new lizard and snake remains from the late Eocene (MP 19) of Escamps (Phosphorites du Quercy, France) reveal a fascinating and diverse squamate assemblage prior to the ‘Grande Coupure’
- 3:30 **J. Head, M. Lawing, F. Kyalo Manthi, J. Müller, A.S. Hall, S. Muteti, D.J. Peppe, S. Cote, K.P. McNulty** Squamate reptiles from the Early to Middle Miocene of equatorial Eastern Africa: implications for paleoenvironments and the origins of modern diversity
- 3:45 **A. Lawing, J.L. McGuire, J. Müller, F. Kyalo Manthi, J. Head** Body size ecometrics in global squamate communities
- 4:00 **R.E. Armfield** Endless snakes most beautiful: searching for the drivers of cranial evolution across Constrictores

Wednesday Afternoon, November 12, 2025
Technical Session V: Vertebrate Assemblages
Meeting Room Hall 8
Moderators: Donald Davesne and Giovanni Serafini

- 1:45 **F. Duffy, M. Coates, J. Hagadorn, T. Lyson** A new Late Devonian sarcopterygian assemblage from the Parting Formation of Central Colorado
- 2:00 **B.R. Peacock, C.F. Kammerer, C.A. Sidor, R.M. Smith, S. Tolan, P.A. Viglietti, M. Whitney, K.D. Angielczyk** Successive assemblages of upper Permian vertebrates in the upper Madumabisa Mudstone Formation of the Luangwa Basin, Zambia
- 2:15 **R. Butler, E. Panciroli, S. Walsh, L. Meade, S. Evans, M.E. Jones, S. Maidment, R.B. Benson** The Kilmaluag Formation of the Isle of Skye: a site of exceptional vertebrate preservation in the Middle Jurassic
- 2:30 **G. Serafini, E.E. Maxwell, C.A. Papazzoni, S. Danise** Life and death in the Mesozoic deep-sea: paleobiology and taphonomy of pelagic vertebrate megafauna from the abyssal Upper Cretaceous of Northern Italy
- 2:45 **M.C. Langer, A. Batezelli, R. Delcourt, F. Muniz, T. Fachini, F. Iori, J. Ruiz, J. Silva Júnior, E. Chimpay, C. Camus** New tetrapods from the Cretaceous–Paleogene transition in the Peruvian Amazon
- 3:00 **D. Davesne, L. Lacombe** The teleost fish fauna of Elam (Eocene of Iran): an exceptional glimpse into Paleogene deep-sea ecosystems
- 3:15 **A.I. Crichton** A diverse vertebrate assemblage from the late Oligocene of central Australia and its biochronological implications
- 3:30 **J.D. Carrillo, J.W. Moreno Bernal, A. Cárdenas, L. Mora-Rojas, C. Jaramillo, D. Silvestro** Fossil sampling bias, faunal composition, and Miocene climatic events: reassessing the palaeoecology of the La Venta mammal assemblage in tropical South America
- 3:45 **J. Cruz, E. Lindsey** Paleobiogeography patterns of amphibians and reptiles from Rancho La Brea
- 4:00 **A.K. Behrensmeyer, J.M. Hutson** ¹⁴C dating of naturally occurring bones in two modern river systems: implications for time-averaging and taphonomy of vertebrate remains in paleochannel deposits

Wednesday – Saturday, November 12 – November 15, 2025
Colbert Prize Poster Session

Meeting Room Hall 3

Authors must be present from 4:30 – 6:30 p.m. on Wednesday, November 12 and Thursday, November 13

- B1** T. Yagura, Y. Kobayashi, C. Tsogtbaatar, G.F. Funston, P.J. Currie Vertebral fusion in the terminal caudal series of an ornithomimid dinosaur from the Lower Cretaceous Khuren Dukh Formation, Gobi Desert
- B2** N.S. Whalen Testing the utility of reptilian enamel microstructure for taxonomic assessment: *Alligator mississippiensis* enamel microstructure shows substantial ontogenetic variation reflecting scaling and changing biomechanical demands
- B3** M.G. Varghese, S. Sova, A. Kaffash Hoshidar, J. Jernvall Shaping dental complexity: the role of enamel in bear tooth evolution
- B4** Y. Utsuki, Y. Kobayashi Functional evolution of the archosaurian neck and the origin of the avian S-curve
- B5** R.E. Sweedler, L.N. Weaver Mammals from the Hewett's Foresight local fauna (Lance Formation, Bighorn Basin, Wyoming) suggest Laramide uplifts influenced terrestrial diversity patterns near the end of the Cretaceous
- B6** R. Sugawara, K. Tanaka, D.K. Zelenitsky A novel approach to estimate body mass of non-avian dinosaur embryos
- B7** R. Sheng, D. Chen, G. Niedzwiedzki, J. Marshall, H. Blom, M. Qvarnström, D. Snitting, P.E. Ahlberg A new, articulated, early tetrapod from the end-Devonian of Greenland
- B8** L. Rose, J. Fröbisch, A. Jannel Fossoriality and forelimb function in early tetrapods: a comparative 3D range of motion analysis of the Permian recumbirostran 'microsauro' *Batropetes palatinus*
- B9** B. Pittard, J. Hansford, R. Felice, J. Cooper, J. Smith, P.D. Mannion Utilizing past archives to create long-term biodiversity baselines for declining UK bird populations: enhancing conservation and ecological understanding
- B10** S.A. Patrocínio, E. Panciroli, F. Rotatori, O. Mateus, J. Milàn, L. Clemmensen, V.D. Crespo Tracing docodontan origins: a new Triassic–Jurassic mammaliaform from East Greenland
- B11** S. Oyabu, Y. Kobayashi Beak and occipital morphology reveal feeding and biogeographic patterns in ankylosaurs
- B12** S. Onitsuka, Y. Kobayashi, Y. Lee, K. Tsogtbaatar, C. Tsogtbaatar, D. Idersaikhhan Ontogenetic and evolutionary implications of gigantism-related morphology in *Deinocheirus mirificus* (Theropoda: Ornithomimosauria)
- B13** M.E. Montgomery, C. So, H.C. Maddin, A. Mann Detailed anatomy of the neotype of *Amphibamus grandiceps* (YPM 794) revealed by high contrast micro-CT analysis
- B14** I. Milford, B. Rodwell, E.C. Kirk Variable effects of endocranial volume on sulcal lengths in the mammalian Order Carnivora: an analysis of virtual endocasts based on micro-computed tomography.
- B15** O.A. Mendez, J. Head, J. Zonneveld, T. Smith, C.A. Brochu, Y. Zaim, A. -, Y. Rizal, A. Hascaryo, J.I. Bloch First crocodyliform fossils from the Eocene of Indonesia
- B16** Z.E. Lewis, A. Farnsworth, M.J. Benton Vertebrate latitudinal diversity dynamics across the Permo–Triassic boundary
- B17** A.E. House, N.I. Cookson, J. Pardo, A. Mann A new sphenacodont synapsid from the early Permian Washington Formation of Ohio, USA
- B18** M. Herde, J.A. Nyakatura, P.A. van Bijlert, V. Díez Díaz The rhythm of giants: modeling sauropod tail oscillations to infer energetically efficient walking kinematics
- B19** S. Citron, H.F. James, A. Keirnan, V. Weisbecker, A. Iwaniuk When ibises acted like kiwis: niche convergence and nocturnality in an extinct Hawaiian ibis
- B20** T. Biot, D.R. Lomax, F. Miedema, E.E. Maxwell A well-preserved specimen from the Lower Jurassic (Toarcian) of Whitby provides insights into caudal morphology in the genus *Stenopterygius*
- B21** S. Bijl, M. Fritzen, P. Tafforeau, J. Anderson, S.J. Sanchez An embolomerid humerus inside out: life history traits of a non-amniote tetrapod revealed by synchrotron microtomography
- B22** E.F. Ayres, S. Brusatte, J. García-Girón Were areas of higher ecological uniqueness consolidated as centres of recovery after the end-Cretaceous extinction?
- B23** A.F. Alfonso Rojas, R.M. Salas-Gismondi, A. Schmaltz Hsiou, J.I. Bloch, P. Antoine, J. Head Pioneering snakes: reconstructing the early arrival of colubroids in South America

Wednesday Afternoon, November 12, 2025
Regular Poster Session I
Meeting Room Hall 3
Authors must be present from 4:30 – 6:30 p.m. on Wednesday, November 12

Symposium: Synchrotron Radiation Micro-CT Scanning in Paleontology

- B24 C.J. Marchant, X.A. Jenkins, B.R. Peacock** Night and day: synchrotron micro-CT scans illuminate scleral ring anatomy and diel activity patterns in stem reptiles
- B25 W. Lätt, P.E. Ahlberg, D. Chen** Three-dimensional synchrotron imaging offers new insights into the dentition of the Devonian tetrapod *Ichthyostega*

Paleozoic Fishes

- B26 T. Miyashita, P. Janvier, K. Tietjen, M. Coates** High-flow heart tract and increased ventilation in stem gnathostomes
- B27 X. Lin, H. Han, Z. Gai, M. Zhu** A super-sized eugaleaspiform fish (Galeaspida, Stem-Gnathostomata) from the Silurian of Yunnan, China and its palaeoecological implications
- B28 Y. Zhang, X. Shan, X. Lin, Z. Gai, P. Donoghue** A new genus of Dayongaspidae (stem-Gnathostomata) from the Silurian of Jiangxi, China, and a new interpretation of galeaspid oral apparatus
- B29 M. Mulligan** Discussing *Eldaaspis miklii* (Osteostraci) dermal hard tissue and vascular histology
- B30 A. El Fassi El Fehri, J.N. Keating, M. Grohganz, M.J. Benton** The taxonomy and phylogeny of British ‘cephalaspids’
- B31 Y. Asakura, T. Hirasawa** Evolution of cranial joints in jawed vertebrates: insights from paleontological and evo-devo perspectives
- B32 J.T. Flannery-Sutherland, A. Tims, L. Soul, J. Clarke, M. Friedman, S. Giles** The phylogenetic signal of extinction through the rise and fall of early vertebrates—field of bullets or clustered strike?
- B33 J.B. Pears, Z. Johanson, K. Dollman, M. Friedman, M.D. Brazeau** The anatomy of a rhenanid placoderm, *Jagorina pandora*, revealed by synchrotron radiation microtomography
- B34 H.C. Egli** The first Bashkirian-aged marine Chondrichthyan assemblage from the eastern United States, including the earliest occurrence of the ctenacanth *Glikmanius occidentalis*
- B35 W. Itano** The first report from Britain of the enigmatic Carboniferous chondrichthyan *Lagarodus*
- B36 S. Zhao, J. Li, Z. Sun** Three-dimensional dental vascular system and enameloid structure of Synechodontiformes from the Late Permian to the Middle Triassic of China
- B37 X. Shan** The dermal skeleton of stem-actinopterygian *Moythomasia* and its implications for the evolution of cosmine
- B38 M. Tumelty, S. Giles, B. Igielman** The earliest fossil evidence of stem polypterids
- B39 J. Lu, M. Zhu, X. Liu, M. Wang, W. Zhao, T. Qiao, L. Jia** Silurian–Devonian osteichthyans from South China illuminate early sarcopterygian evolution
- B40 Y. Mo, Y. Haridy, E. Daeschler, N. Shubin, T. Stewart** New fin material from the Devonian of Ellesmere Island, Arctic Canada and radial diversity in tetrapodomorph fishes

Dinosauria I: Ornithischia & Theropoda

- B41 N. Ju, X. Wang, C. Yu** Non-avian theropod dinosaur mass reconstruction from bone measurements by machine learning
- B42 N. Zoller, K. Miller, T.A. Dececchi** Do what you can, with what you have, where you are: tracing the evolution of locomotory wing use diversity in theropods
- B43 T.R. Holtz** The Long and the Short of It: fore- and hindlimb proportions show variable degrees of correlation across non-volant theropod dinosaur diversity
- B44 M. Sakamoto, P.S. Anderson** DinoSAW: experimental biomechanics of whole-toothrow cutting function in theropod dinosaurs

- B45 E. Tasimov, A. Farnsworth, L. Mulvey, D. Černý, J. Marsola, Á.T. Kocsis, T. Clements, S. Lautenschlager, E. Dunne** *Veggieisaurus rex*: environmental and biotic drivers of herbivorous theropod biogeography and evolution
- B46 C.W. Garros, K.A. Beguesse, M.R. Doschak, P.J. Currie** In defense of destructive sampling: comparison of paired microCT and histological sampling of theropod metatarsals from the Dinosaur Park Formation (DPF) reveal the importance of histology for paleopathological interpretation
- B47 X. Wang, N. Ju, C. Yu** Morphological and size evolution of medium to large Jurassic theropods from China
- B48 A. Samathi, K. Puntanon, S. Suteethorn** Postcranial material of a spinosaurid (Dinosauria: Theropoda) from the Early Cretaceous of Khon Kaen, Thailand: implications for evolution and paleobiogeography of Asian spinosaurids
- B49 A. Zak, D. Hone** Skeletal indicators of webbed feet in birds and their applications to *Spinosaurus*
- B50 P. Rhynard, M. Stricklin, R. Ridgely, L.M. Witmer** An *Allosaurus* skull atlas: new insights into the skull anatomy of *Allosaurus jimmdadsoni* (Dinosauria, Theropoda) based on CT scanning, with an analysis of the use of paranasal sinuses in discriminating *Allosaurus* species
- B51 E. Malafaia, D. Estraviz-López** Reevaluating the phylogeny of the enigmatic Late Jurassic Portuguese theropod *Lourinhanosaurus antunesi* Mateus, 1998: allosauroid, megalosauroid or coelurosaur?
- B52 R. Pei** Integrated analyses reveal complexity of ecomorphology and reoccurring convergence in non-avian coelurosaurians
- B53 D. Fahy, S.H. Burch** Myological reconstruction of the forelimb of *Yutyrannus huali* and muscular trends within Tyrannosauroida
- B54 WITHDRAWN**
- B55 A. Lopez-Vaca, G. Elcombe** Neck deep in bite forces: a multibody dynamics pilot study of *Tyrannosaurus rex* feeding mechanics
- B56 C. Coppock, J.T. Voris, M.J. Powers, P.J. Currie** Taxonomic and biostratigraphic revision of tyrannosaurids from the Belly River Group of Alberta, Canada: insights into evolutionary history of Albertosaurinae
- B57 D.K. Smith** Locomotory changes within the therizinosaurian lineage from *Falcarius* to *Nothronychus*
- B58 C. Tsogtbaatar, A.L. Titus, J.J. Sertich, K. Knoll, L.E. Zanno** New material of an ornithomimid (Theropoda, Ornithomimosauria) dinosaur from the Upper Cretaceous Kaiparowits Formation of Utah reveals hidden diversity
- B59 D. Rourke, P.J. Currie** A new species of *Struthiomimus* from the Horseshoe Canyon Formation reveals a species complex within the genus
- B60 M. Fitzpatrick, H.D. Hanks, K. Shimada** A dromaeosaurid theropod tooth from an Upper Cretaceous (Turonian) marine deposit in northeastern South Dakota, USA
- B61 J.O. Bahena Mateos, K.M. Cantalice Severiano, M. Montellano Ballesteros, A. Torices Hernández** Description of large theropod dental material (Dinosauria, Theropoda) from the Campanian (Upper Cretaceous) of the El Gallo Formation, Baja California, Mexico
- B62 L.T. Dickson, V. Arbour** Identifying the trackmaker for the tetradactyl theropod ichnogenus *Saurexallopis*
- B63 T. Blakesley, P. dePolo, D. Ross, N. Clark, S. Brusatte** A new Hebridean morphotype series in the Middle Jurassic Valtos Sandstone and Kilmaluag Formations on the Isle of Skye, Scotland
- B64 E.P. Cerna, L.T. Yann, E. Petsios, D.J. Peppe** Documenting the formation and deposition of a theropod dinosaur trackway from the Upper Glen Rose Formation, Hamilton County, Central Texas, USA
- B65 S. Ashby, V. Boulton, P.R. Bell, I. Walker, C.M. Brown, B. Pickles, S. Hurst, M. Rampe, P. Durkin** Excavating and recording dinosaur dominated tracksites of Dinosaur Provincial Park, Alberta, Canada: including The Skyline Tracksite
- B66 M. López Miguel, F. Ortega, A. Torices** Isolated theropod teeth from 'Lo Hueco' site, Upper Cretaceous, Cuenca, Spain
- B67 I. Aguilar Pedrayes, D. Button, E. Rayfield, M.J. Benton** Measuring ornithischian tooth complexity using patch count rotated analysis

- B69 A. Otomo, D.K. Zelenitsky, R. Sugawara, K. Tanaka, C. Sullivan, F. Therrien** Perinate hadrosaurid bones and associated eggshell fragments from the Upper Cretaceous (Upper Campanian) Oldman Formation of southeastern Alberta, Canada
- B70 PROGRAM ADJUSTMENT**
- B71 F. Manucci, F. Bertozzo, D. Vidal** Body mass reconstruction and new in-vivo restoration of *Parasaurolophus cyrtocristatus* (Dinosauria, Hadrosauridae)
- B72 G.M. McCullough, R. McCord, B. Bannon** Description of the first hadrosaurid dinosaur maxilla reported from Arizona, USA, from the Upper Cretaceous Fort Crittenden Formation
- B73 T. Dudgeon, D. Evans** Evolution of feeding mechanics in Iguanodontia (Ornithischia, Ornithopoda)
- B74 F. Bertozzo, S. Lautenschlager, C. Mallet** ‘You get the thumb’: the role and function of the spike-like pollex in *Iguanodon bernissartensis* (Dinosauria, Ornithopoda) via biomechanics approaches
- B75 J. Gônet, R. Allain, A. Houssaye** Locomotor reassessment of *Iguanodon*, *Ouranosaurus* and *Lurdusaurus* (Dinosauria, Ornithopoda) using comparative osteology
- B76 M. Ciudad Real Ballester, F. Escaso, J.M. Gasulla, F. Ortega** Comparative neuroanatomy of three ornithopod individuals from the Lower Cretaceous of Morella (Castellón, Spain)
- B77 J. Salas-Herrera, F. Escaso, J.M. Gasulla, F. Ortega** Pelvic and hind limb biomechanics of a limping basal styracosternan from the Lower Cretaceous of the Eastern Iberian Peninsula
- B78 J. Rubio Nieto, F. Torcida Fernández-Baldor, A. Torices** A preliminary study of the small ornithopod bones from the Barremian-Aptian site of Viájeté (Burgos, northern Spain)
- B79 J. Kanipe, D. Winkler, L.E. Zanno, T.A. Gates** Cranial re-description of the early diverging iguanodontian (Rhabdodontomorpha) *Tenontosaurus dossi*: a case study of distinguishing biodiversity in the fossil record
- B80 F.J. Augustin, T. Treiber, Z. Csiki-Sava** New material of the rhabdodontid *Transylvanosaurus platycephalus* (Dinosauria: Ornithischia) from the uppermost Cretaceous of the Hateg Basin (western Romania)
- B81 A.M. Younk** Craniofacial and histological ontogeny of *Psittacosaurus mongoliensis* and *P. lujiatunensis*: toward evidence for the developmental underpinnings of species differences
- B82 A. Manning, L.M. Witmer, R. Ridgely, D. Evans, T. Williamson, Q. Zhang, S. Walsh, D.K. Smith, O.C. Bertrand, S. Brusatte** Brains or brawn? Endocranial and neuroanatomical changes during the evolution of ceratopsian dinosaurs
- B83 E.A. Ames, D. Button, A.J. Rowe** Using Finite Element Analysis to determine combative evolutionary drivers of ceratopsid horns.
- B84 B.C. Theurer, C. Sullivan** The posture of the hind limb in ceratopsid dinosaurs
- B85 W.H. Steelman, M.D. Angner, S. Persons, N.S. Levine** Mapping *Triceratops* Gulch: a GIS and drone photogrammetry approach to the Lance Formation beds of Glenrock, Wyoming
- B86 A.D. Straley, M. Loewen, J.J. Sertich** Postcranial anatomy of *Torosaurus* (Ceratopsidae: Chasmosaurine) from the Upper Cretaceous (Maastrichtian) Ojo Alamo Formation of the southeastern San Juan Basin, New Mexico, USA
- B87 K. Myhran, J. Mallon, L. Hall, L. Spicher, D. Johnson, J. Scannella** A new chasmosaurine (Ornithischia, Ceratopsidae) skull from the Judith River Formation (Campanian) of Montana, USA
- B88 E. Bamforth, J. Sweder** ‘Big Sam’: a new large skull of *Pachyrhinosaurus lakustai* from the Campanian (72 Ma) Wapiti Formation of northwest Alberta, Canada, with implications for intraspecific variation
- B89 T.M. Wallington, W.H. Steelman, S. Persons** The first ceratopsian tracksite of the Lance Formation
- B90 I. Walker, T. Williamson, A. Manning, R. Sullivan, S. Brusatte** The endocranial anatomy of the derived ankylosaurid *Ziapelta sanjuanensis* (Dinosauria, Ornithischia): endocasts of the brain, inner ear and nasal pathways reveal unique anatomical innovations with biological and ecological implications
- B91 A. Buschhaus, E. Teschner, J. Kriwet, S. Stumpf** From small to surprising: rethinking the Late Cretaceous island-dwelling ankylosaur *Struthiosaurus*

- B92 B. Green, J. Cavigelli, M. Forir, L. Vietti, A. Wroblewski** Micro-CT analysis of the internal bone structure of nodosaurid osteoderms: a comparative study of osteoderm morphology across the cervical, thoracic, and caudal regions of *Denversaurus*
- B93 K.C. Rayburn** Ichnotaxonomic and sedimentological analyses of the fossil record of Thyreophera (Dinosauria: Ornithischia) suggest that some degree of gregarious behavior was common to derived members of the clade
- B94 C.A. Forster, K. Poole, M.R. Spencer, J.M. Clark, X. Xu** A new ornithischian from the Upper Jurassic Shishugou Formation, Xinjiang, China, and a novel analysis of ornithischian phylogeny

Carnivora

- B95 X. Wang, O. Carranza-Castañeda** Latest Hemphillian Carnivora of Yepómera Basin, Chihuahua, Mexico
- B96 H. Pourabbas Vafaei** Paleontology of vertebrate carnivores: study of the late Miocene carnivorous mammals from the Maragheh region, northwestern Iran
- B97 S.M. Palmer, T.M. Kirkwood, J.A. Schwab, J.P. Rule, M. Michaud** Brain size and sensory tradeoffs in carnivoran evolution: insights from fossil and extant Caniformia
- B98 S.J. McKeon** Influences of locomotor mode and prey-capture strategies on upper cervical vertebral morphology in extant carnivores
- B99 WITHDRAWN**
- B100 S. Sarwar-Gaunt, P. Polly** A basal felid clade in North America at the end of the ‘cat gap’
- B101 M.H. Haji-Sheikh** Is *Smilodon fatalis* the cat we think it is? Using computed tomography to find the answer
- B102 J. Jolie, A.J. Lang, K. Schübler, T. Martin** Digital cranial and inner ear endocasts of *Hoplophoneus primaevus* and new implications for nimravid hunting behaviour
- B103 H. Chirchir, A. Clemens, A. Hotchner, J. Meachen** Quantifying internal and external bone morphology of *Miracinonyx* and other big cats
- B104 A.J. Lang** External cerebral morphology of *Panthera spelaea* in comparison to extant felids
- B105 V.L. Naples, M.H. Haji-Sheikh** Not so fast, rodents: hystricomorphy also occurs in extinct felids
- B106 K. Schübler, A.J. Lang, J. Jolie, T. Martin** Canine replacement and cortex size of an Oligocene juvenile nimravid, *Dinictis* sp., with sabertooth adaptation
- B107 R.C. Stoddard, D. Lofgren, J. Scannella** A new nimravid from the Eocene Pipestone Springs Locality, Montana
- B108 J.A. Pérez-Claros, B. Figueirido, A. Martín-Serra** The evolution of the genus *Pachycrocuta*: current status and future perspectives
- B109 L. DeSantis, X. Wang, U. Adugba** Gnashing or gnawing? Contextualizing the dietary ecology of domesticated dogs (*Canis lupus familiaris*, *Canis lupus dingo*) via dental microwear comparison across continents
- B110 O.E. Stenberg, S. Viranta, J. Jernvall** Molar evolution in Canidae surmounts a developmental rule
- B111 D. Estraviz-López, A. García-Vázquez, M. Ríos, A. Grandal-D’Anglade** Late Pleistocene fossil Ursidae from Portugal (Iberian Peninsula): morphometry and paleobiological inferences
- B112 T.M. Kirkwood, S. Shultz, M.T. Silcox, J.A. Schwab, S.M. Palmer, G.A. Lyras, A.A. van der Geer, K. Jones** Endocranial shape evolution across terrestrial–aquatic transitions in caniform carnivorans
- B113 W.M. Parker, T.I. Pollock, F.G. Marx, C. Loch, J. Velez-Juarbe, L. Paterson-Crisp, T. Park, E.M. Fitzgerald, A.R. Evans, J.P. Rule** Specialized canine teeth correlate with the deep-time evolution of pinniped mating systems
- B114 A.T. Boeye, W.J. Hart, O.A. Goodchild, K.B. Gormann, L. Horstmann** High bite forces reveal divergent ecological drivers in pinniped evolution
- B115 J.A. Schwab, T.M. Kirkwood, S.M. Palmer, K. Jones** Mosaic evolution of the neck and inner ear in aquatic carnivorans
- B116 L. Koper, S.L. Damico, M.G. Crowell, S.J. Rahmat** Bridging the past with the present: exploring the morphology of fossil seal ossicles with micro-CT scanning and visualization

- B117 A.M. Valenzuela-Toro, F. Busker, J. Cuitiño, M. Buono** New insights into the morphology and paleoecology of *Kawas benegasorum*, an enigmatic fossil seal from the Puerto Madryn Formation (Tortonian), Patagonia.
- B118 R. Boessenecker** A new record of the fur seal *Pithanotaria starri* (Mammalia: Otariidae) from the uppermost Miocene Purisima Formation of northern California reveals cryptic diversity in late Neogene pinniped assemblages from the eastern North Pacific
- B119 J.I. Bloch, J.R. Bourque, A.M. Jukar, R.E. Narducci, A. Woodruff, R.C. Hulbert** Oldest known New World river otter from North America coincident with high-latitude intercontinental mammalian dispersal event in the latest Miocene
- B120 S. Tomiya, C. Grohé, M. Longuet, N. Egi, T. Htike, Z. Maung Thein, M. Takai** Giant mustelids (Mammalia, Carnivora) from the lower member of the Irrawaddy Formation (upper Neogene) of Myanmar
- B121 B. Adrian** Locomotor diversity of giant otters from Plio-Pleistocene hominin sites in Africa

Lepidosauria

- B122 Q. Nasrullah, A.S. Tucker** The secrets behind continuous tooth replacement in reptiles
- B123 L. Kremers, F. Della Giustina, N. Chatar, D. Bastiaans, J.J. Hennekam** Mosasaurid jaw biomechanics provide insight into the role of the intramandibular joint in squamate biting performance
- B124 J. Maschke, P. Jiménez-Huidobro** Endocasts and associated neurovascular systems of two mosasaurines: *Plotosaurus bennisoni* and *Mosasaurus missouriensis* (Squamata, Mosasauroidae), from the Upper Cretaceous of North America
- B125 C.G. Gomez** Analysis and description of a partially prepared sub-adult *Mosasaurus missouriensis* (Squamata, Mosasauridae) from the Bearpaw Formation during the Upper Cretaceous in Western Canada
- B126 H.S. Sharpe, H. Street, T. Konishi, M. Caldwell** Revision of *Mosasaurus lemonnieri* reveals unique anatomy, significant variation, taxonomic issues, and a new species
- B127 D. Bastiaans, D. Cornelissen, J. Jagt, A.S. Schulp** The life and death of mosasaur ‘Carlo’, an unusual globidensine mosasaur from the upper Maastrichtian Gulpen Formation of the Maastrichtian type area (southeast Netherlands, northeast Belgium)
- B128 T. Konishi, A. Rojas, S. Saha, J. Mays, C. Miller** The earliest-known specimen of *Prognathodon* (Squamata, Mosasaurinae) from the middle Campanian Weskan Shale Formation, Kansas, USA, and its implications for the evolution of macrophagous, crunch-guild mosasaurines
- B129 P. Jiménez-Huidobro, J. Maschke, J. Jolie, J.A. Schultz, I. Ruf** Inner ear morphology of a tylosaurine mosasauroid from the Upper Cretaceous of North America
- B130 H. Yi, S. Hou, C. Zhou** Tail shedding in two Cretaceous lizards: autotomic structures revealed by X-ray CT scanning
- B131 T.I. Prause, B.R. Peacock, T.G. Kaye, M. Whitney** New Maastrichtian microsites update squamate diversity and biogeography of the Lance Creek Formation
- B132 M.J. Powers, F.F. Garberoglio, M. Caldwell** Boa grandfather and Madtsoia sister: new specimen of *Boavus idelmani* shakes up the family tree
- B133 A. Bolet, M.E. Jones, J.J. Hooker, S. Evans** The Late Eocene record of amphisbaenians (Reptilia, Squamata) from Hampshire Basin (UK)
- B134 C. Zak, E.R. Rolince, H.A. El-Saka, J. McCartney, E. Sieffert, M.R. Borths, H. Sallam** A partially articulated skeleton of a possible dwarf boa (Tropidophiidae) from the early Oligocene of the Fayum Depression, Egypt
- B135 A. Villa, A. Bolet, J. Klembara, A. Serrano-Martínez, À.H. Luján, J. Fortuny, M. Delfino, B. Schillinger, D. Alba** A new anguine lizard (Squamata, Anguinae, Anguinae) from the late Miocene (Vallesian) of the Vallès-Penedès Basin (NE Iberian Peninsula)
- B136 G. Varnham, J. Head** Fossil tests of hypotheses of competitive exclusion and geographic isolation in the evolution of gigantism in *Varanus*
- B137 M. Basa, A. Knapp, R. Felice** Drivers of morphological variation in the mandible of alethinophidian snakes
- B138 I. Donato, M.N. Hutchinson, E. Sherratt, E.H. Reed** A taphonomic analysis of the fossil lizards from Blanche Cave, Naracoorte Caves (South Australia)

- B139 J. Jacisin, M. Kemp** Cranoskeletal elements of *Anolis* lizards from the Greater Antilles exemplify rubato and harmonic variation within ecomorph specialists
- B140 A. Serrano-Martínez, L. García-Escolà, P. Cruzado-Caballero, A. Villa, C. Castillo, J. Fortuny** Relative shape and size of the brain in extant and extinct *Gallotia* lizards (Squamata, Lacertidae) and the neurosensorial and cognitive capabilities of the genus
- B141 C. Nacarino-Meneses, P. Álvarez Nieto, P. Cruzado-Caballero, C. Castillo, M. Köhler, J. Fortuny** Bone histology of *Gallotia* revisited: new insights into the growth and life history of the giant lizards from El Hierro (Canary Islands, Spain) obtained from paleohistological analysis
- B142 B.M. Rothschild, J. Herrera-Flores, T. Stubbs, M.J. Benton** The fruits of collaboration across specialties: the earliest documentation of cartilage-related cancer, a chondrosarcoma, in the fossil record

Vertebrate Assemblages

- B143 B. Shipps, C.A. Sidor, K.D. Angielczyk** Tracking changes in tetrapod diversity throughout the upper Permian Usili Formation (Lopingian) of Tanzania
- B144 J.W. Reumer, I.R. Van der Beek, A.S. Schulp** The Winterswijk quarry (Anisian, Middle Triassic, The Netherlands): one of the richest fossil biomes of its time
- B145 S. Kryder, H.E. Burch, M.R. Stocker, S.J. Nesbitt** The microscopic past: using rarefaction analysis to optimize the processing of sediment from Late Triassic microvertebrate sites
- B146 E. Armour Smith, B.T. Kligman, A. Marsh** Microvertebrate assemblage from a Late Triassic bonebed in Arizona shows faunal diversity at the Adamanian–Revueltian boundary
- B147 E.E. Maxwell, G. Arratia, M. Ebert, M. Johnson, S. Stumpf, P. Vincent, S. Cooper** Understanding vertebrate faunal change through time in the Early Jurassic (Toarcian) Posidonienschiefer Formation
- B148 S.P. Finch, C. Tsogtbaatar, W.J. Freimuth, G. Bayasgaa, P. Delgerzaya, R. Tucker, L.E. Zanno** New vertebrate fossil discoveries from the Early Cretaceous Dzun Shakhai and Shine Usny Tolgod localities from the Eastern Gobi Basin of Mongolia
- B149 C. Underwood, D.J. Ward** Barren slopes and teeming rivers; the aquatic-based ecosystem of the Kem Kem deposits (mid Cretaceous, Morocco)
- B150 E.G. Cross, E. Hyland, S.P. Finch, C. Tsogtbaatar, R. Tucker, L.E. Zanno** Stable isotope geochemistry illustrates niche partitioning in the Bayanshiree Formation of Mongolia
- B151 R. Rogers, K. Curry Rogers, D.W. Krause** New insights into the geology and paleontology of the Upper Cretaceous (Turonian/Coniacian?) Ankazomihaboka sandstones, Mahajanga Basin, northwestern Madagascar
- B152 J.S. Cabrera Hernández, F. Ortega, A. Torices** Microvertebrate assemblage from the Upper Cretaceous site Lo Hueco (Cuenca, Spain).
- B153 A.G. Armagno, K. Shimada** Fossil vertebrate diversity and paleoecological implications of a new fossiliferous horizon from the Upper Cretaceous Smoky Hill Chalk, Logan County, Kansas
- B154 A. Torices, J.S. Cabrera Hernández, M. Montellano Ballesteros** Campanian-Maastrichtian vertebrate fauna from Laurasia: a comparative analysis between southern North American and Iberian Peninsula fauna
- B155 E.J. Cruz-Vega, J. Velez-Juarbe, H. Hu, H. Santos-Mercado** New vertebrate assemblage from the Upper Cretaceous (Maastrichtian) El Rayo Formation of Puerto Rico
- B156 U. Karmakar** A review of geological, floral and faunal changeover across Paleogene-Neogene boundary, along selected transects, Kutch Basin, Western India
- B157 P. Rummy, W. Huang, Y. Wu, X. Hu** Coprofauna from the Cenozoic of China: insights from Longgupo Cave on ecosystem complexity and coprolite taphonomic processes
- B158 A. Huseen, R. Bussert, M. Mohammednoor, U. Struck, S. Tsukamoto, A. Eisawi, F. Bibi** Paleoenvironment of Pleistocene vertebrates from the middle Atbara River, eastern Sudan
- B159 H. Blain, S. Parfitt, C. Sánchez-Bandera, A. Fagoaga, J. Bisbal-Chinesta, S. Lewis, R. Davis, N. Ashton** New palaeoecological investigations and post-glacial re-colonization process of the British Isles based on herpetofauna at the Hoxnian East Farm Barnham site (UK)

Thursday Morning, November 13, 2025
Romer Prize Session
Meeting Room Hall 1
Moderators: Sara Burch and Susie Maidment

- 8:00 A.R. Zietlow** Reassessment of North American mosasaur morphology and diversity as informed by extant squamates
- 8:15 S. Woodgate** Evolution through space and time: the fossil record of *Podarcis pityusensis*, the Ibiza wall lizard, as a system to link form-function-environment trajectories across scales of varying magnitude
- 8:30 L.W. Viñola-López** Extinction and human niche construction lead to a reduction of functional ecology in terrestrial mammal communities across the Caribbean
- 8:45 Y. Uno, T. Hirasawa** When and how did the propatagial structure evolve in the lineage towards birds?
- 9:00 C. San Román** Deciphering the teleostean fishes from the paleowetland of Las Hoyas: implications on the early diversification of teleosts during the Cretaceous
- 9:15 M. Riegler** An atlas of cranial anatomy for extant worm lizards (Squamata: Amphisbaenia) using diceCT to re-evaluate the fossil record of Rhineuridae
- 9:30 J. Rawson** Homoplasy and functional innovation characterise the evolution of the mammalian jaw joint in probainognathian cynodonts
- 9:45 C. Morrison, J. Bestwick, K. Schroeder, C. Jackson, J. Gregory, S. Gascoigne, P. Bills, L.B. Porro, P.D. Mannion, P.M. Barrett** Ontogenetic and spatial dietary partitioning as the ecological mechanism for high sympatric theropod diversity inferred from dental microwear texture analysis
- 10:00** Coffee Break
- 10:15 D. Meyer** The anatomy of the carpus and tarsus of squamates provides novel morphologic support for key molecular clades
- 10:30 N.E. Loughlin** Assessing changes in North American mammalian diversity and habitat suitability since Last Glacial Maximum based on ecological niche models
- 10:45 K. Kocáková** Extinction mechanisms in sharks and rays: The role of age and spatial range across 145 million years of evolutionary history
- 11:00 M. Jones** Vertebral functional morphology informs tail use in sthenurine giant kangaroos
- 11:15 E.J. Hillan** New *Tiktaalik roseae* material reveals locomotor innovation in the water-to-land transition
- 11:30 J. Heath** Regional and global drivers of Mesozoic dinosaur diversification
- 11:45 C.M. Gordon** Phylogenetic machine learning predicts cryptic aquatic habits and soft-tissue features in extinct amniotes
- 12:00 P.M. Burke** The internal cranial anatomy of Gavialoidea reveals profound implications for crocodylian evolutionary history

Thursday Morning, November 13, 2025
Technical Session VI: Mesozoic Seas & Skies
Meeting Room Hall 4
Moderators: Lene Liebe Delsett and David Unwin

- 8:00 Y. Hu, J. Liu, Q. Li, P.S. Druckenmiller, N. Klein, T.M. Scheyer, N. Kelley, M. Sander** Osteohistological dichotomy suggests divergent marine lifestyles and thermometabolic strategies in thalattosaurs (Reptilia, Archosauromorpha)
- 8:15 L. Liebe Delsett, A. Chinsamy, J. Kimball, M.G. Faure-Brac, V. Sukhvasi, P. Alam, A. Houssaye, N. Pyenson, L. Poori, B. Kear** Swim like a fish: vertebral perspectives on the locomotory convergence of ichthyosaurs and whales
- 8:30 J. Pardo-Pérez, M. Malkowski, P. Zambrano, D.R. Lomax, C. Gascó Martín, J. Kaluza, H. Ortíz, A. Pérez, M. Cáceres, E.E. Maxwell** New morphological evidence of the gravid *Myobradypterygius hauthali* (Reptilia: Ichthyosauria) from the Hauterivian (Early Cretaceous) of southern Chilean Patagonia revealed by CT scan analysis: the 'Fiona' ichthyosaur

- 8:45 F. Miedema, L.L. Delsett, C. Klug, M. Geiger, E.E. Maxwell** The complex evolutionary history and developmental trajectory of the neioichthosaurian pelvic girdle and the second potential non-ophthalmosaurian ichthyosaur from the Cretaceous
- 9:00 Y. Zhang, L. Diao, D. Jiang, R. Motani, Y. Liu** New anatomical information of *Atopodentatus unicus* (Sauropterygia, Reptilia) from the Middle Triassic of South China
- 9:15 L.E. Muscutt, I. Karpadakis** Hydrodynamic advantages of tandem flipper phasing in plesiosaur swimming: insights from an advanced robotic model
- 9:30 E.R. Goldsmith, M.R. Stocker** What large teeth (sockets) you have! Using dental alveolus lengths to predict phytosaur skull size distributions in a phylogenetic and paleoecological context
- 9:45 W. Reyes, M. Brown** Disparity in growth dynamics between early-diverging pseudosuchians and their kin
- 10:00** Coffee Break
- 10:15 P.J. Byrne, D. Bottjer, N.D. Smith** Can bone-volume thickness detect bone pneumatized by pulmonary diverticula in extant and extinct archosaurs?
- 10:30 A.J. Fitch, C. So, A. Mann** Pterosaurs show earliest known loss of vertebrate powered flight and deep origin of 'ornithoscelidan' anatomy
- 10:45 M. Bronzati, A. Watanabe, R.B. Benson, R.T. Müller, S.J. Nesbitt, M. Fabbri** Pterosaur neuroanatomy converged with that of bird precursors but did not follow the avian path
- 11:00 J. Bestwick, T. Stubbs, C. Miller, R. Pêgas, T.M. Scheyer** Functional morphology of pterosaurs and avialans and the impact of non-adults in facilitating competitive exclusion between these two volant clades in the Mesozoic
- 11:15 M.M. Flaunet, V.T. Merino Salinas, D.M. Unwin, R.S. Smyth, J. Bestwick** Aerodynamic impacts of hind limb presence, size, and posture on the pterosaur flight apparatus
- 11:30 D.M. Unwin, A. Hecker, C. Ifrim, H. Tischlinger, R. Smyth** A new structural model for the flight patagia of pterosaurs
- 11:45 C. Caputo, T. Cullen, M.B. Habib, H. Zou, R. Gottardi, L. Bilenker** Multi-proxy isotope analysis refutes trans-oceanic foraging and reveals dietary complexity in pterosaurs
- 12:00 J. Martínez-Barredo, T. Aureliano, C. Martínez-Pérez, Á. Saraiva, X. Pereda-Suberbiola, B. Holgado** Preliminary histotaphonomic analysis of pterosaur-bearing concretions from the Romualdo Formation in Jardim, Porteirás and Santana do Cariri (Araípe Basin, Brazil)

Thursday Morning, November 13, 2025
Technical Session VII: Laurasiatheria
Meeting Room Hall 8
Moderators: Rebecca Bennion and Bian Wang

- 8:00 A.L. Norwood, D.R. Green, B. Pobiner, J. Faith** An adaptable inverse model for recovering seasonality signals from serial mammalian tooth enamel isotopes
- 8:15 B.B. Wooten, L. DeSantis** Role of body size in shaping the dietary ecology of the North American 'Hell Pig' (*Archaeotherium*) revealed through dental microwear texture analysis
- 8:30 S. V. Robson, A. Prokop, A. Ashbaugh, S. Misati, S. Tucker, J. Theodor** Quantifying morphological disparity in the petrosal bone and the bony labyrinth: a case study using extinct and extant camelids
- 8:45 B. Wang, Q. Wang, Z. Zhang** Oligocene ruminants from Saint Jacques, North China
- 9:00 N.S. Heckeberg, E. Bärmann, J. Cantalapiedra, L. Costeur, Y. Li, B. Mennecart, R. Rozzi, L. Sorbelli, F. Bibi** The Ruminatrix—a dataset for investigating morphological evolution of ruminants (Mammalia, Artiodactyla)
- 9:15 E. Amson, A. Alfsen, E. Berger, E. Peri, A.S. Gohar, H. Sallam, G.S. Ferreira, R.R. Chowdhury, T. van de Kamp, Q. Martinez** The endocranial anatomy of protocetids: implications for early whale bone mass increase and paleoneurology
- 9:30 P. Giuffra, M.D. Uhen, A.M. Benites Palomino** A new bizarre basilosaurid from the Pisco Basin of Peru displaying unexpected primitive features challenges the major trends in cetacean evolution

- 9:45 R. Bennion, G. Bianucci, A. Collareta, E. Coombs, F. Nobile, M. Merella, O. Lambert** Niche partitioning in the odontocete fauna from the Early Miocene Chilcatay Formation of Peru
- 10:00** Coffee Break
- 10:15 R.J. Strauch, A.J. Werth, C.M. Peredo, M.D. Uhen** Can suction feeding be determined for fossil cetaceans? Morphological criteria for identifying suction specialists
- 10:30 M.F. Jones, C.K. Siemann, D. den Ouden, S. Moghe, K. Beard** Subfamily-level relationships within Nyctitheriidae (Mammalia, ?Eulipotyphla) illuminate patterns of dispersal and evolution in a group of Paleogene insectivores
- 10:45 O.E. Wilson, L.P. Bergqvist, J.N. Gelfo, T. Zanesco, J. Saarinen** The food the fire beasts ate: testing the universality of mesowear angles in bilophodont South American ungulates
- 11:00 J. Tissier, T. Smith** PerissOrigin: re-examining the phylogeny of early perissodactyls reveals unnoticed dispersals of the first North American, European, and Asian ‘horses’
- 11:15 B. Bai, J. Meng, Y. Wang** A diverse perissodactyl fauna from the early Eocene of southern China
- 11:30 A. Selini, T. De Ridder, P. Aerts, J.A. MacLaren** An opportune moment: investigating inertial properties of the distal limb of horses through an iconic evolutionary transition
- 11:45 Z. Landry, C. Bataille, D. Fraser, L. Chauvey, J.H. Miller, S. Schiavinato, E. Scott, L. Tonasso-Calvière, G. Zazula, L. Orlando** New cranial material and nuclear genome sequences clarify evolutionary relationships of *Haringtonhippus francisci*
- 12:00 J.A. Moretti** Insights into the origins of migratory and maternity colony behaviors in the free-tailed bat, *Tadarida brasiliensis*, from an exceptional Pleistocene fossil record in Inner Space Cavern, Texas

Thursday Afternoon, November 13, 2025

Symposium: Ancient Biomolecules

Meeting Room Hall 1

Moderators: Ryan Patterson and Valentina Rossi

- 1:45 K. Wolkenstein** Quantitative detection of melanin pigments in fossil vertebrates using mass spectrometry
- 2:00 A. Roy, E.T. Saitta, M. Musa, S. Al-Kindi, T.G. Kaye, M. Pittman** Experimental maturation of carotenoids and psittacofulvins indicates their lower preservation potential compared to melanin, in carbonaceous compression fossils
- 2:15 V. Rossi, R. Unitt, M.E. McNamara** Melanin chemistry as a tool to investigate the phylogenetic affinity of enigmatic fossils: Mazon Creek Lagerstätte as a case study
- 2:30 L.A. Barlow** Hamular cartilage is a conserved feature from the dawn of mammals
- 2:45 M.R. Dickinson, L. Patinglag, K. Shaw, K. Penkman** Intracrystalline insights: refining mammalian evolution through enamel-based amino acid geochronology
- 3:00 R.W. Burroughs, C.J. Percival, N.S. Vitek** Proteomic and phenotypic variation in rodent dentition from a feeding experiment
- 3:15 A. García-Vázquez, G. González-Fortes, A. Pinto-Llona, E.M. Fernández-Bejarano, A. Barlow, M. Hofreiter, A. Grandal-D'Anglade** Integrating stable isotopes, ancient DNA, and radiocarbon dating to reconstruct the ecological and genetic history of Iberian brown bears
- 3:30 A.J. Jian, L. Schwark, S.F. Poropat, A.I. Holman, L. Brosnan, M. Diaz Mateus, M.E. Böttcher, K. Grice** An organic and isotopic characterization of a concretion-entombed ichthyosaur: taphonomic insights into the Lower Jurassic Posidonia Shale (Germany)
- 3:45 M.L. Miller, J. Wiemann** Genomic evidence combined with time-integrated biosignatures applied to new fossils suggests an archosaurian origin of avian endothermy
- 4:00 J. Wiemann, M.L. Miller, L. Olden, M. Haase** Machine learning applied to modern and fossil biomolecules reveals the evolution of the vertebrate biomineralization toolkit

Thursday Afternoon, November 13, 2025

Technical Session VIII: Mammalian Ecology & Biogeography

Meeting Room Hall 4

Moderators: Joaquin Arroyo-Cabrales and Emily Lindsey

- 1:45 **S. Hopkins** Understanding Oligocene biogeography and stratigraphy of meniscomyine rodents: revising the biostratigraphic patterns in a lineage of burrowing rodents
- 2:00 **J. Arroyo-Cabrales, B.W. Schubert, J.C. Chatters, J.X. Samuels, J. Cruz, D. Rissolo, H. Barba-Meinecke** Hoyo Negro: an amazing deposit for Pleistocene fauna
- 2:15 **B.E. Carter, T.M. Smiley, J. Alroy, R. Feng, C. Badgley** Mountains can preserve ecological community functioning during periods of climate change: evidence from Miocene mammal assemblages of western North America
- 2:30 **A. Lindholm, R.A. Close** Persistent body size bias in the fossil record of North American Cenozoic mammals
- 2:45 **N. Chabrol, H. Morlon, G. Escarguel, J. Clavel** Detecting the effect of past biotic interactions and climate changes on phenotypic evolution
- 3:00 **J. van der Hoek, M. Ruta, K.E. Davis, R.T. Gilman, K. Jones** Evidence for deep-time clade interactions in the diversification of Cenozoic carnivores and artiodactyls
- 3:15 **R. Tabuce, B. Marandat, S. Adnet, K. Gernelle, F. Girard, L. Marivaux, J. Schnyder, E. Steurbaut, J. Storme, J. Yans** Mammalian faunal turnover in Europe triggered by a latest Paleocene Pre-PETM global warming event
- 3:30 **D.L. Fox, D. Birlenbach, N.E. Loughlin** Biogeography and diversity of Miocene ungulates in central and western North America in relation to topography
- 3:45 **F.A. Smith, E.A. Elliott Smith, C. Tomé, K. Lyons** The differing response of mammalian carnivores to the terminal Pleistocene extinction
- 4:00 **E. Lindsey, A.M. Jukar, M.I. Pardi, R. Feranec, C. Tomé, J. Southon, M.R. Waters** Climate, Clovis, and catastrophe: hundreds of new radiocarbon dates reveal near-synchronous extinction of North American megafauna across multiple regions 13,000–12,800 BP

Thursday Afternoon, November 13, 2025

Technical Session IX: Synapsida

Meeting Room Hall 8

Moderators: Zanildo Macungo and Megan Sodano

- 1:45 **M.P. Sodano, S.J. Czerkas, R. Irmis, A. Huttenlocker** Exceptionally preserved skeleton from a lower Permian interdune deposit in southeastern Utah sheds light on early synapsid phylogeny and ecomorphological diversity
- 2:00 **S.K. Pevsner, R.B. Benson** Comparative evidence for independent evolutionary reductions of tail length among stem mammals
- 2:15 **M.O. Day, J. Benoit, J. Ramezani, B.S. Rubidge** The Wordian/Capitanian boundary in the Karoo Basin: chronological constraints on the first occurrence of *Tiarajudens* (Therapsida, Anomodontia) in South Africa
- 2:30 **Z.A. Macungo, R. Araújo, M.O. Day, B.S. Rubidge, S. Jirah, J. Benoit** New species of large gorgonopsian from the *Eodicynodon* Assemblage Zone of South Africa and the diversity of middle Permian carnivores
- 2:45 **A. Duhamel, A. Huttenlocker, J. Benoit** The earliest-diverging cynodont? New middle Permian specimen sheds light on the early morphological evolution of eutheriodonts
- 3:00 **D. Landi, S.A. Singh, L. King, E. Rayfield, M.J. Benton** The early evolution of beaks across Permian and Triassic
- 3:15 **K. Ehler, K.D. Angielczyk, R. Araújo, M. Whitney** Tusk histology of Permian dicynodonts reveals a diversity in growth patterns and adaptations to seasonality
- 3:30 **K.D. Angielczyk** Morphological complexity, reduction, and loss of the postfrontal bone of Permian dicynodonts (Therapsida, Anomodontia)
- 3:45 **Y. Shi, J. Liu** A new species of *Dinanomodon* (Dicynodontia) from China and the paleobiogeographic implications of Pangaea during the late Permian
- 4:00 **A. Brant, C.A. Sidor** Intraspecific variation of the maxillary canal in a sample of green iguanas (*Iguana iguana*): preliminary implications for the reconstruction of fossil neurovasculature.

Thursday Afternoon, November 13, 2025
Regular Poster Session II
Meeting Room Hall 3
Authors must be present from 4:30 – 6:30 p.m. on Thursday, November 13

Mesozoic Seas & Skies

- B160 J. Liu, Y. Qiao, M. Iijima** A new hupehsuchian (Reptilia: Ichthyosauromorpha) with widely spaced autopodium from the marine Lower Triassic of South China
- B161 C.X. Su, D. Jiang, R. Motani, M. Zhou** Retrodeformation and jaw muscle reconstruction of a *Chaohusaurus brevifemoralis* (Ichthyosauriformes, Reptilia) skull from the Lower Triassic of South China
- B162 A.S. Wolniewicz, L. Gu, J. Liu** A new specimen of the Early Triassic ichthyosauriform *Chaohusaurus zhangjiawanensis* from Yuan'an, Hubei Province, South China
- B163 D. Jiang, R. Motani, M. Zhou, J. Huang, A. Tintori, N. Fraser, O. Rieppel** New *Sclerocormus* specimens confirming differences in the dentition between Nasorostra and Omphalosauridae
- B164 T. Fornari, N.B. Fröbisch** A unique tooth replacement pattern in the enigmatic Middle Triassic marine reptile, *Omphalosaurus*
- B165 P. Nordenhaug, A.J. Roberts, J. Hurum, V.S. Engelschön** Molar opposites: using radiography and micro-computed tomography to reveal unique dental morphologies and a previously unknown diversity of mixosaurid ichthyosaurs of the genus *Phalarodon* from the Middle Triassic of Svalbard
- B166 N.T. Counts, J. Blouet, N. Klein, Q. Li, J. Li, P. Sander** Stratigraphy of marine reptile horizons in the Anisian Fossil Hill Member (Middle Triassic, Nevada, USA) reveals trends in Panthalassic ichthyosaur diversity
- B167 S.O. Cancel-Matos, N. Kelley** Improvements in size estimation techniques and implications for the evolution of body size within Ichthyosauromorpha
- B168 D. Nau, R. Dederichs, J. Heijne** Evolution of gigantism in ichthyosaurs as revealed by volumetric modelling
- B169 M.G. Faure-Brac, L.L. Delsett** On ichthyosaurs' metabolism: first results
- B170 D.R. Lomax, J. Massare, E.E. Maxwell** A new long-snouted Early Jurassic (Pliensbachian) ichthyosaur illuminates a complex faunal turnover following the Triassic–Jurassic extinction
- B171 J.F. Delgado-Carrillo, K. Moreno, E.E. Maxwell, J. Pardo-Pérez** Biomechanics of swimming in ophthalmosaurian ichthyosaurs (Reptilia, Ichthyosauria) from the Lower Cretaceous of Torres del Paine National Park, Southern Chile
- B172 C.L. Kearns, H. Singleton, D.R. Lomax** Historical and taxonomic review of ichthyosaur specimens in the Beneski Museum of Natural History (Amherst College, Massachusetts, USA)
- B173 A.E. Henderson** Analysis of the reduction of diversity within ichthyosaurs through competition using ecospace variables
- B174 K.T. Gerken, D. Konietzko-Meier, N. Klein** Preliminary data about histology of the bone of attachment in Temnospondyli and Ichthyosauria
- B175 V. Fischer, F. Della Giustina, R. Bennion, J.A. MacLaren** The nature of the Cenomanian–Turonian turnover in marine reptiles
- B176 K.K. Formoso, K.T. Giljarhus, B.E. Flammang** Surface swimming drag of terrestrial amniotes and insights into secondarily aquatic transformations and lack thereof
- B177 L.H. Holmes** The comparative biomechanics and cranial hydrodynamics of Jurassic marine reptiles
- B178 M. Rychel, E. Bamforth, T. Marchant** Ontogeny of Late Cretaceous polycotyloid plesiosaurs from the Western Interior Seaway in Saskatchewan, Canada: a histological approach to long bone microanatomy
- B179 T. Sato, T. Nishimura, T. Shinmura, T. Chitoku** A new Turonian polycotyloid plesiosaur from Hokkaido, Japan
- B180 J.B. Davidson, T. Challands, D. Foffa, D. Ross, S. Brusatte** A plesiosaur deathfall from the Middle Jurassic of the Isle of Skye, Scotland

- B181 Q. Liu, L. Cheng, T. Stubbs, Z. Fang, L. Tian, C. Yan, M.J. Benton** Ontogenetic dietary partitioning in a Triassic sauropterygian: implications from a new juvenile specimen of *Brevicaudosaurus jiyangshanensis* (Reptilia: Diapsida)
- B182 J. Pople, T.M. Scheyer** A nothosaur-dominated reptile assemblage from the eastern Alpine Triassic (Anisian) of Switzerland
- B183 Q. Li, Y. Hu, Y. Shen, P. Sander, J. Liu** A new large *Nothosaurus* (Reptilia, Eosauropterygia) from the Middle Triassic of South China and the phylogeny of Eosauropterygia
- B184 A.A. Rytel, T. Skawinski** Re-discovery of well-preserved sauropterygian skeletons from the Gogolin Formation in Poland—insights into the early evolution and spread of aquatic reptiles in the Early/Middle Triassic
- B185 E. Patellos, C.H. Woolley, D. Bottjer, N.D. Smith** Osteoderms represent a major component of the fossil record for Upper Triassic tetrapods
- B186 D. Hill, J. Weinbaum** Assessing *Machaeroprotopus* (Archosauriformes, Phytosauria) squamosal morphology from the Martha's Butte Beds (Upper Sonsela Member Chinle Formation)
- B187 C.R. Munro-Flanagan, J.R. Hutchinson** A 3-D reconstruction of the pelvic musculature of *Riojasuchus tenuisiceps* (Archosauria, Ornithosuchidae)
- B188 A. Ben-Salahuddin, J. Weinbaum** A northeastern Arizona bonebed of the Late Triassic archosaur *Typhothorax coccinarum* provides an opportunity to test for ontogenetic and social dynamics
- B189 S. Herter, J.B. Desojo, U. Bachmann, T.M. Scheyer** Osteohistology of a new specimen of *Aetosaurus ferratus* (Archosauria, Aetosauria) from the Late Triassic of Frick (Canton Aargau, Switzerland)
- B190 N. Krivka, R. Irmis, A. Manafzadeh, S.J. Nesbitt** An articulated hind limb of *Dromomeron romeri* (Lagerpetidae) and its implications for interpreting early ornithodiran footprints
- B191 J. Song, S. Jiang, X. Wang** Pterosaur phylogeny revisited with novel characters and comprehensive analyses
- B192 D.J. Morgan, E. Puetz, S. Broadbent, J.M. Clark, B. Andres, A. Balanoff** Convergent evolution in endocranial morphology of pterosaurs and birds: how the brain shapes locomotory behaviors in archosaurs
- B193 N. Jirgal, R. Nudds** Evidence of temporal variation in pterosaur flight style
- B194 R.A. Frigot** Scramble or stride: pterosaur pelvic disparity suggests locomotor shift occurred gradually and independently of body size
- B195 M. Schneider, D. Henderson, L.P. Claessens** Functional morphology of the prepubis in Pterosauria
- B196 S.A. Ludwig, R. Smyth, D.M. Unwin, D.M. Martill, R.E. Smith** Assessing relationships between ungual morphology and terrestrial ecology in pterosaurs
- B197 B. Andres, J.M. Clark, R. Hernandez-Rivera, M. Montellano Ballesteros** The second species of *Dimorphodon*
- B198 D. Hone, R. Lauer, B.H. Lauer, A.J. Fitch, F. Spindler** New specimens from old localities: expanding the Solnhofen region pterosaur community with new taxa
- B199 S.N. McDavid, H.N. Thomas** Flying reptiles of the forgotten paleocontinent: revision of the pterosaurs of Appalachia and Eastern North America
- B200 D. Theda, D. Hone, R. Lauer, B.H. Lauer** A remarkable new 3D cranium of the ctenochasmatid *Gnathosaurus* reveals new anatomical details of the genus
- B201 F. Costa, G. Santos, C. Freire, J. Silva, F. Moura, B. Hörmanseder, R. Pêgas** Exploring the aerodynamic impact of the head crest in *Tupuxuara leonardii* (Pterosauria)
- B202 R. Buchmann, T. Rodrigues** The high bite force of *Tupandactylus navigans* (Pterodactyloidea: Tapejaridae) and implications for frugivory
- B203 H.N. Thomas, S.N. McDavid** Giant size convergently evolved multiple times in Azhdarchidae (Pterosauria, Azhdarchoidea)
- Laurasiatheria**
- B204 M. Longuet, S. Tomiya, R.A. Short, Z. Maung Thein, M. Takai** Reconstruction of the Neogene paleoenvironment in central Myanmar, using ecometric analysis of the artiodactyl calcaneus

- B205 B.D. Davenport, A.L. Norwood** Evaluating the relationship between ungulate herbivore muzzle width and $\delta^{13}\text{C}$ variability among modern species: implications for interpreting stable isotope data from the fossil record
- B206 A. Ashbaugh, H. Jamniczky, J. Theodor** You should look a gift horse in the mouth: using 2D occlusal cheek tooth morphology to study the evolution of molarization in hoofed mammals
- B207 F. Lihoreau, K. Uno, T.E. Cerling, G. Guinot, A. Houssaye, M. Orliac, L. Scribano, J. Boisserie** Recurrent adaptation of the Hippopotamoidea to life in water
- B208 L. Scribano, F. Lihoreau, A. Houssaye, N. Clarisse, J. Boisserie** Postcranial anatomy of the late Miocene hippopotamoids from Toros-Ménalla, Chad
- B209 S.O. Parod, D.R. Prothero, S. Kottkamp** Fossil camels from the Miocene Punchbowl, Crowder, and Cajon Valley formations of the Transverse Ranges, California
- B210 D.R. Prothero, K.I. Watmore, E. Welsh, M.R. Forcellati, S.M. Lukowski, S.O. Parod** Evolution of the protolabine camels (Artiodactyla, Camelidae)
- B211 G.E. Rössner** Not at all living fossils: recent advances in paleobiology of tragulids
- B212 H.R. Caldwell, H. N. Woodward** Osteohistologic variability between the femur and tibia of Rocky Mountain elk (*Cervus canadensis*): implications for ontogenetic interpretations in extinct cervids
- B213 J. Smith, M. Loewen** Antler morphology of an exceptional specimen of *Cervalces scotti* from northwestern New Jersey, USA
- B214 J. Gegner, J. Theodor** We're all ears: a comparison of five merycoidodontid petrosals
- B215 K.I. Watmore, D.R. Prothero** Interspecific and intraspecific variation in the horncores of the merycodonts (Mammalia, Artiodactyla, Antilocapridae, Merycodontinae) with implications for merycodont systematics
- B216 A. Grossman, S.E. Cromwell, N. Solounias, R. Calvo, R. Rabinovich** Fossil Giraffidae from Early Miocene deposits of the Hazeva Formation, northern Negev, Israel
- B217 A. Vohs, L.N. Weaver, S.G. Chester, T. Lyson** Dental microwear textures of archaic ungulates from the early Paleocene of the Denver Basin
- B218 N.D. Rosas, W.A. Barr** Astragalus shape characteristics of bovids (Bovidae) from the middle Miocene of Kenya and Pakistan suggest that exploitation of grasses for habitat preceded widespread adoption of grazing behavior
- B219 Q. Shi** New finds of fossil bovids from the Linxia Basin, northwest China, and their implications for biostratigraphy
- B220 J. Brophy, G. Matthews, D. de Ruiter** An examination of the enigmatic *Tragelaphus pricei*, an extinct bushbuck from South Africa
- B221 L. Sorbelli** Adaptability through time: biochronology and ecomorphology of *Bison* in the Western Palearctic during the Quaternary
- B222 M. Orliac, M. Mourlam, H. Bouaziz, M. Waqas, H. Thewissen, T. Smith, R. Weppe** Recent data on the enigmatic family Raoellidae: how aquatic...how cetacean?
- B223 A. Martin-Serra, A. Valverde, J.A. Pérez-Claros, B. Figueirido** Developmental mechanisms of axial evolution in stem and crown cetaceans (Mammalia, Artiodactyla)
- B224 Y. Soda, N. Kohno** Ecomorphological divergence of semicircular canals in cetaceans: implications for locomotor adaptation in diverse aquatic habitats
- B225 A. Gay, K.E. Kassegne, Y.Z. Amoudji, A. Johnson, M. Thiam, B. Sambou, A. Charruault, G. Guinot, J. Martin, L. Hautier** Taxonomic and ecological diversity of middle Eocene protocetids from Togo
- B226 A.S. Gohar, M.S. Antar, S. El-Sayed, H. Sallam** New giant protocetid pelves from the middle Eocene of Egypt: implications for hindlimb evolution in early whales
- B227 E. Marx, M. Harzhauser, J. Kriwet** Taxonomy, taphonomy and phylogeny of a historical *Stromerius nidensis* specimen (Cetacea, Basilosauridae) and other archaeocete material from the collection of the Natural History Museum Vienna
- B228 M.D. Nelson, F. Nobile** The 'squalodonts' of the Belluno sandstones: an updated study of systematics, taphonomy, and paleobiology of *Squalodon bellunensis* and *Squalodon peregrinus* (Cetacea, Odontoceti)

- B229 A. Ohguri, N. Kohno** A new fossil whale (Cetacea: Odontoceti) from the Lower Pliocene of the western North Pacific
- B230 T. Park, C. Caverro-Rozas, W.M. Parker, A.J. Tennyson, F.G. Marx** New data on the evolution of delphinids in the southern hemisphere
- B231 C. Caverro-Rozas, D. Ochoa, M. Carre, M. Urbina, R.M. Salas-Gismondi** Macroevolutionary dynamics of Odontoceti and the rise of Delphinidae in the Peruvian coast
- B232 M.R. Woolley, A. Chinsamy** Age estimation and life history traits of modern and fossil mysticetes from Southern Africa
- B233 F. Cailleux, L.W. van den Hoek Ostende, P. Joniak** Late Miocene insectivores as environmental indicators: an introduction to the North Pannonian eulipotyphlan metacommunities
- B234 S. Pommerening, T. Martin** Digital reconstruction of masticatory musculature and jaw mechanics in Soricidae
- B235 P. Medina-González** Do all mesotheriids move alike? Functional signals from morphospaces and angular kinematics profiles
- B236 D.C. Kalthoff, J.N. Gelfo, T. Mörs** Enamel microstructure in Eocene Sparnotheriodontidae (Mammalia, Litopterna) from Antarctica and southern South America
- B237 L.T. Holbrook, D.A. Croft, B.L. Beatty, B. Wynd** Variation in metaconid morphology and the distribution of twinned metaconids in Perissodactyla, Cambaytheriidae, Anthracobunidae, South American native ungulates, and Desmostylia
- B238 J.A. Gajewski** First subadult skeleton of *Teleoceras aepysoma* (Perissodactyla, Rhinocerotidae): insights into morphology and ontogeny in a North American rhinoceros
- B239 M.A. Khan, Z. Gul** Dental defects in the late Miocene to middle Pleistocene Siwalik Perissodactyla from Pakistan
- B240 G.S. Goncalves, R. Barrick** Using mesowear analysis on *Teleoceras fossiger* and *Teleoceras aepysoma* material to understand feeding ecology
- B241 D.P. Kirson, A. Kitchener, S. Brusatte** A new perissodactyl from the Eocene London Clay of England
- B242 C. Janis, T. Gunnarsdottir, N. Trepp Centellas, J.A. MacLaren** The feet of anchitheriine horses: padding the evidence?
- B243 M. Hullot, C. Martin, J. Tissier, J. Clavel, D. Becker** Paleoeological impacts of major crises on species diversification: insights from the high-resolution fossil record of Perissodactyla during the ‘Grande Coupure’ in Europe
- B244 R. Rabenstein, S. Engels, J. Habersetzer, N.B. Simmons** Now there are eight—a new *Palaeochiropteryx* species (Mammalia, Chiroptera) from the Middle Eocene of Messel, Germany
- B245 H. Bouaziz, C. Lezin, N. Robin, M. Orliac** Fossil evidence of advanced nasal echolocation in late Eocene Hipposideridae (Yinpterochiroptera, Chiroptera) from Quercy, France
- B246 F.A. Perini, L.D. Salles, C.R. Moraes-Neto, L. Costeur, T. Lehmann, K.T. Smith, R.M. Beck, M. Orliac, S. Hand, N.B. Simmons** New insights into wing evolution in bats: comparative forelimb morphology and yangochiropteran relationships (Mammalia, Chiroptera)

Symposium: Ancient Biomolecules

- B247 E.A. Mulder, S. Bijl, K. Ignatyev, T. Geraki, A.S. Schulp** *Archaeopteryx* color and paleoecology illuminated by synchrotron X-ray Fluorescence and spectroscopy
- B248 G. González-Fortes, E.M. Fernández-Bejarano, E. Trucchi, A. Grandal-D’Anglade** New genomic data shed light on the biogeographic history of *Lynx lynx* in Western Europe
- B249 C. Pessoa de Lima, R. Sansom, M. Buckley** The diagenesis of dental enamel proteins in different pH solutions during a thermal degradation experiment
- B250 M. Tagliavento, J. Tejada** Testing the preservation of $\delta^{15}\text{N}$ in intra-crystalline amino acids
- B251 N. Robin, H. Bouaziz, C. Lezin, M. Orliac** ‘Immediate’ phosphatization: understanding exceptional fossilization in the Quercy mummies (Eocene–Oligocene of France; MEDUSE-P)
- B252 B.T. Fuller, G.B. Davies, V. Grimes, M.A. Mannino, G. Van Biesen, K.E. Campbell, R. Dunn, E. Lindsey, J. Southon, M.R. Waters** 45,000 years of California turkey (*Meleagris californica*) paleoecology at Rancho La Brea reconstructed with radiocarbon dates paired with bulk and amino acid isotopic measurements

B253 J.D. Ayala, W. Mason, E.R. Schroeter Evaluating targeted hemoglobin extraction from extant and diagenetically altered bone

B254 K. Penkman Building a future for Ancient Biomolecular research & researchers

Mammalian Ecology & Biogeography

B255 J. McMinn, E. Saupe, A. Goswami, A. Farnsworth How has the biogeography of Gondwanan mammal clades varied across deep time?

B256 L.D. Gilmore, S. Gili, P. Hagge, A. Akhtar, K. Hoppe, E. Niespolo, J. Higgins Ca isotopes in tooth enamel and its potential for paleoenvironmental reconstruction

B257 I.R. Newbins, R. Rogers, M.T. Carrano, G.P. Wilson Mantilla New occurrences of eutherian mammals in the Judith River Formation of north central and central Montana: implications for eutherian biogeography in Laramidia during the Late Cretaceous (Campanian)

B258 S.L. Shelley, J.J. Eberle, G.M. Erickson, P.S. Druckenmiller New high-latitude multituberculates reveal mammalian dispersals and endemism in Late Cretaceous Alaska

B259 H.E. Nuttall, J.T. Flannery-Sutherland The great Gondwanan adventure: mapping the dispersal of metatherian mammals in the Palaeocene

B260 A.W. Peng, N. Famoso Investigating the effects of sample size on diversity and disparity measures in fossil assemblages of the John Day Basin, Oregon, USA

B261 R. Weppe, G. Guinot, F. Condamine, F. Lihoreau, M. Vianey-Liaud, L. De Bonis, C. Blondel, M. Orliac Drivers of the mammalian Grande Coupure in Western Europe at the Eocene–Oligocene transition

B262 N. Baird Tracing the formation of the North American hot deserts since the Miocene via mammalian paleoecology and body size distribution

B263 S. Cote, K.P. McNulty, D.J. Peppe, A.L. Deino, M.W. Kioko, C. Ochieng, K.E. Jenkins, A.S. Hall, J. Head, J. Siembo Meswa Bridge (~23 Ma) is now Tonde Bridge (21.4 Ma)

B264 J. Sun, F. Bibi, I. de la Torre Biogeography and community structure of Eurasian and African large mammals from the Late Miocene to the present: continental-scale turnover, functional stability, and no wave of dispersal associated with *Homo* out of Africa

B265 S. Zubaid, A. Parker, J. Glöggl, M. Waseem, M. Tallavaara, L. Liu, J. Saarinen, I. Zliobaite Dental ecometrics as a tracer of climatic change during Late Neogene in the Siwaliks

B266 D. R. Ramoni, M. Montellano Ballesteros Neogene–Quaternary biogeographic structuring of the mammalian associations in northern South America

B267 F. Bibi, E. Abdallah, R. Bussert, A. Huseen, B. Kraatz, J. Müller, S. Tsukamoto, K. Salih, J. Zhang, A. Eisawi PALEONILE: A new window onto the Mid–Late Pleistocene of Northeast Africa

B268 A. Couzens, F. McInerney, G. Prideaux Stable isotopes reveal dynamics of dietary change amongst late Cenozoic Australian herbivores

B269 N.K. Turner, E.H. Reed Bite at the end of the tunnel: a review of the taphonomic effects of large marsupial carnivores from Pleistocene Australia

B270 T.L. Bampton, E.H. Reed, L. Arnold, M. Demuro, L. DeSantis, S.J. Bourne Unravelling possible extinction drivers for Australia's Quaternary giants: using stable isotope analysis to reconstruct community level ecology of Late Pleistocene mammals from Naracoorte, South Australia

B271 Y. Fernandez-Jalvo Biostratigraphic and taphonomic studies from Middle–Late Pleistocene fossil mammals assemblages in the Argentine Pampas

B272 I. Eijkelboom, L. van der Sluis, M. Gianni, F. Busschers, A.S. Schulp, T. Higham, F. Wesselingh Reassessing late Quaternary megafaunal occurrences in Doggerland through amino acid ¹⁴C dating

Synapsida

- B273 K. Nicholas, M. Malone, S.S. Sumida** New information and a three-dimensional digital atlas of an unusual stapes of *Dimetrodon* (Amniota, Synapsida, Sphenacodontidae) from a remarkably well-preserved specimen from the early Permian Clear Fork Formation of north-central Texas
- B274 N.I. Cookson, H. Sues, C.A. Sidor, A. Mann** Postcranial osteology of the gorgonopsian *Cyonosaurus*, and the impacts of postcranial characters on the phylogeny of Gorgonopsia
- B275 A. Mann, B.R. Peacock, C.A. Sidor** Cranial osteology of the large rubidgeine *Dinogorgon* from the upper Permian upper Madumabisa Mudstone Formation of Zambia
- B276 B.P. Stuart, A. Huttenlocker, B.M. Weiss, J. Botha** New eutheriodont (Synapsida: Therapsida) specimens from the Permo-Triassic boundary locality Nooitgedacht 68 in South Africa
- B277 E.S. Lund, F.P. Wolvaardt, R.M. Smith, J. Jodder, J. Benoit** Re-description of the Triassic cynodont *Cistecynodon parvus* and reassessment of its phylogeny
- B278 J.K. Lungmus, K.D. Angielczyk** Postcranial anatomy of a rare Emydopoidea: insights from *Compsodon helmoedi*
- B279 J. Benoit, L. Legendre, R. Araújo, F. Abdala, K.D. Angielczyk** The paleoneurology of *Lystrosaurus* (Therapsida, Dicynodontia) through the end-Permian Mass Extinction
- B280 J.L. Pinto, A. Huttenlocker, K.D. Angielczyk, J.J. Flynn, A. Wyss, L. Ranimoharimanana** An update on placentine dicynodonts: comparative histology, a new taxon, and reorganized phylogeny reveal diversity in body size and life histories

Ichnology & Paleobiology

- B281 B.H. Lauer, R. Lauer, C. Duffin, D.J. Ward, A. Ward** Enigmatic sideritic coprolites from Madagascar
- B282 M. Roy, C. Widga** Walking Before Giants: Triassic fossil trackways from the Newark Basin and their evolutionary and behavioral implications for neotheropod dinosaurs
- B283 I.S. Hutchinson, C. Redman, R. Souberlich, Y. Sarubbi Jacks, C. Colman, A.D. Apgar, E. Koren, S. Fryberger, J.R. Moore** Evaluating trace fossil preservation in a megafan system: new insights from along the Pilcomayo River, Paraguay
- B284 J.R. Moore, C. Redman, R. Souberlich, Y. Sarubbi Jacks, C. Colman, A.D. Apgar, I.S. Hutchinson** Future fossils on fans: A four-year time-series of bone degradation in megafan environments from the Pilcomayo Fan, Paraguay
- B285 C.J. McClellan, B. Britt, R. Scheetz** The impact of insects on the fossil record: examples of insect-modified bones from the Yellow Cat Member of the Cedar Mountain Formation of Utah, USA
- B286 A.D. Apgar, H. Qiao, L. Scuderi, E. Saupe, A.T. Peterson, J. Soberon, J.R. Moore, C. Myers** Virtual taphonomy: examining preservational megabias in a simulated world
- B287 E. Straube** Unearthing the future: exploring implications of geographic range dynamics in the fossil record
- B288 J.S. Mitchell** Comparing ancient & modern gut contents: how do major groups differ in predatory style?
- B289 M. Mead, K. Kverkova, S. Grendeus, M. Osvath, P. Nemec, L.M. Witmer, S. Brusatte** Exploring the Endothermic Brain Hypothesis: did neuron numbers and the metabolism co-evolve?
- B290 E. Steell, A. Hsiang, A. Chen, D.J. Field** Relative homoplasy index: revealing patterns of homoplasy in discrete phylogenetic datasets with a new cross-comparable index
- B291 C. Scutt, N. Cooper, G. Thomas, T. Guillerme** Disparity analyses are robust to ancestral state estimation uncertainty
- B292 A. Capobianco** How many characters are needed to reconstruct a phylogeny?
- B293 J.S. Silviria** Direct inference of ontogenetic pathway networks in PhyG: A viable alternative to 'cladistic' Relative Maturity Assessment and 'reticulistic' Ontogenetic Sequence Analysis?
- B294 F.M. Holwerda, V. Díez Díaz, M. Belvedere, M. Depraetere, I. Alberti, J. Liston, D. Schwarz** How should I publish my digital fossil? Recommendations for the publication of comprehensive 3D datasets in palaeontological studies

Friday Morning, November 14, 2025

Symposium: Evolution of Triassic Non-Marine Tetrapod Communities Through Time I

Meeting Room Hall 1

Moderators: Eudald Mujal and Stephen Spiekman

- 8:00 E. Mujal, A. Miralles-Carreras, H. Sues, R. Moreno, J. Schaeffer, G. Sobral, S. Chakravorti, S. Spiekman, R.R. Schoch** Revisiting the Triassic in the Central European Basin: evolution of terrestrial tetrapod communities and their environments
- 8:15 P.A. Viglietti, K.D. Angielczyk, A. Huttenlocker, J. Botha, R.M. Smith, J. Crowley, C. Browning, C.P. Abbott, T.M. Seerane** Survival and recovery in the Triassic Karoo Basin: insights from Bayesian age models and paleoecological patterns
- 8:30 R.M. Smith, F.P. Wolvaardt, J. Cisneros, F. Pinheiro, J. Bevitt, J. Benoit** Skeletal accumulations of the parareptile *Procolophon trigoniceps* reflect fossorial response to Early Triassic climatic instability across southern Gondwana
- 8:45 C.H. Woolley, C.A. Sidor, N.D. Smith, M. Whitney, P. Makovicky, A. Shinya, R.B. Benson, J.A. McIntosh** New digital data advances our understanding of Early Triassic reptile diversity at the bottom of the world (Fremouw Formation, Antarctica)
- 9:00 F.B. Tolchard, K. Dollman, J.P. Hancox, A.B. Heckert, J. Botha, J. Choiniere** New insights into the Early Triassic archosauromorph radiation from a South African Lagerstätte site
- 9:15 G. Sobral, M.D. Ezcurra** The paleobiology of *Prolacerta broomi*: inferences from paleoneurology
- 9:30 V.D. Neto, A. Machado, A. Martinelli, M.D. Ezcurra, C. Schultz, Á. Da-Rosa, A. Ribeiro, T.R. Simoes, S.E. Pierce, F. Pinheiro** The western Gondwana as a window into archosauromorph diversification following the end-Permian mass extinction
- 9:45 R. Irmis, A.C. Mancuso, R. Mundil, C.A. Marsicano, V. Krapovickas, K.D. Angielczyk** Definitive Early–Middle Triassic vertebrate assemblages from Argentina and their implications for non-marine ecosystem evolution
- 10:00** Coffee Break
- 10:15 F. Pinheiro, A. Machado, V. Paes Neto, A. Farnsworth, T.R. Simoes, S.E. Pierce** News from the South: a Brazilian Perspective on the Triassic Evolutionary Upheaval
- 10:30 D. Foffa, S.J. Nesbitt, M.R. Stocker, B.T. Kligman, A. Marsh, W.G. Parker, R. Butler** The vertebrate fauna of the Moenkopi Formation, including a new microvertebrate locality, and the diversification of low-latitude Triassic communities
- 10:45 M. Scipione, E. Knutsen, E.M. Roberts, J. Esterle, R. Vaucher** Revised Triassic chronology of the Rewan Group and its implications for vertebrate recovery in the Northern Bowen Basin
- 11:00 E. Knutsen, M. Scipione, A.M. Turner, R. Vaucher, D. Konovalov, J. Bevitt** A new look at the Triassic of Queensland, Australia
- 11:15 S. Spiekman, C. Foth, V. Rossi, T.S. Slater, O. Bath Enright, K. Dollman, G. Serafini, M.E. McNamara, H. Sues, R.R. Schoch** A drepanosauromorph from the Grès à Voltzia fossil Lagerstätte (early Anisian) of northeastern France reveals early diversification of integumentary appendages among Diapsida
- 11:30 C.F. Kammerer, Z.T. Kulik, K.D. Angielczyk** A new species of *Dolichuranus* from the Manda Beds of Tanzania and dicynodont diversity through the Triassic
- 11:45 B.M. Weiss, R.B. Benson, S.J. Nesbitt, K. Dollman, K. Chapelle, R.B. Sookias, J. Choiniere** The evolution of terrestrial pseudosuchian body size and posture through the Triassic
- 12:00 S. Chakravorti** Ecomorphospace partitioning in Gondwana: testing niche conservatism vs. diversification models in post-Permian Indian temnospondyls

Friday Morning, November 14, 2025
Technical Session X: Paleontological Practices
Meeting Room Hall 4
Moderators: Kiersten Formoso and Akiko Shinya

- 8:00 M.T. Miller, J. Corcoran, A. Naughton, P. Towler** Criteria for improving the educational content of extinct organisms in children's print media at the Department of Paleobiology, National Museum of Natural History (NMNH), Smithsonian Institution
- 8:15 A.J. Roberts, W. Erlien, Ø. Sørborg, Ø. Hammer, J. Hurum** Bringing paleontology into the classroom: a digital teaching unit on evolution using ongoing research
- 8:30 K.K. Formoso, S.A. Ludwig** Using Discord-based community gaming servers as a means to teach paleontology

- 8:45 K.B. Townsend, L. Thompson, C. Clifford, A. Friscia, P.C. Murphey, L. Stroik, P. Higgins, A. Kumpf** Race to adapt: engaging diverse public audiences with vertebrate responses to climate change via interactive media and field-based learning
- 9:00 B. Minjin, B. Munkhbat, U. Tumen, B. Munkh-Ochir, E. Batbayar, M. Ulziitogtokh, U. Eren** Bringing paleontology to remote communities in Mongolia
- 9:15 M.F. Chavez-Hoffmeister** Paleontological assessment of Atacama, Chile: a model for fossil heritage protection
- 9:30 E.L. Bernard, T. Fogerty, L. Gallagher, D. Tangunan, J. Witts, P. Bown, R. Twitchett** Unlocking dark data in historic collections to address key scientific questions: a case study of the Chalk fish from Southern England
- 9:45 J.C. Sagebiel** Reevaluation of a destructive sampling program
- 10:00** Coffee Break
- 10:15 K.M. Melstrom, J.K. Lungmus** Bite-sized scanning: small object digitization using intraoral scanners
- 10:30 E. Ghezzi, E. Kustatscher, G. Marramà, G. Carnevale, B. Cavalazzi, L. Glusberti, M. Massironi** HYPERPAST—non-invasive fossil screening for material identification, preservation assessment, and conservation management
- 10:45 L. Hall, E.T. Metz, E. Lamm, C. Knight, L. Meld, D.D. Johnson, J. Scannella** Operational impacts and recovery of a paleontology research program following the COVID-19 pandemic: a case study from Museum of the Rockies
- 11:00 S.R. Johnston, C. Green** Testing the critical failure of Paraloid B-72 under various stresses
- 11:15 A. Shinya, J. Holstein, E. Fitzgerald, C. Van Beek, A. Sucher, F. Herrera** Stabilizing a large fossil specimen from the Green River Formation for long-term conversation and display
- 11:30 M.A. Balk, FAIR OS RCN** Early career researcher needs, challenges, & opportunities in ethical open science
- 11:45 E. Dunne, N. Raja, T. Halliday, E. Vlachos, P. Medina-García, T. Wong Hearing, T. Clements, B. Gee, E. Tschopp, S. Greene** Entitlement: the naming and claiming of dinosaur species
- 12:00 M. Brown** Specimens as intellectual property: implications for preparation, collections management, and authorship

Friday Morning, November 14, 2025
Technical Session XI: Crocs & Turts
Meeting Room Hall 8
Moderators: Michela Johnson and Suresh Singh

- 8:00 W. Foster, P. Gensbigler, T. Lyson, G.S. Bever** Early morphogenesis of the turtle body wall: a new origin model for the turtle carapace based on fossils and embryos
- 8:15 G. Hermanson, S.W. Evers** Distinct disparity trajectories characterize the evolution of cranial and shell morphology of turtles
- 8:30 S.W. Evers, G. Hermanson** Drivers and constraints in the evolution of the turtle body plan
- 8:45 A.D. Cornille, K.A. Beguesse, F. Clarac, E. Wolff, P. Asbach, C. Zinner, F. Witzmann** The osteopathology of extant crocodiles as a window into the paleopathology of phytosaurs and other extinct archosauriforms
- 9:00 M. Bhat, T. Cullen, R. Wilhite** Growth dynamics and histological variation of *Alligator mississippiensis*: implications for archosaur physiology
- 9:15 J. Fronimos, R. Wilhite** Soft-tissue anatomy of intervertebral joints in *Alligator mississippiensis*
- 9:30 J.M. Clark, A.A. Ruebenstahl, H. Li, S. Bi** *Platyognathus* from the Lower Jurassic Lufeng Formation of Yunnan extends the record of gobiosuchid crocodyliforms back 67 million years
- 9:45 M. Johnson, E. Mujal, E.E. Maxwell** Traumatic face-biting in a teleosauroid crocodylomorph and implications for conspecific interactions
- 10:00** Coffee Break
- 10:15 M. Rabi, J.D. Walter, A. S. Paiva, T. Massonne, É. Bergerot, J. Martin, M. Delfino** Ain't no 'greater alligator': *Deinosuchus* reconsidered as a giant stem-crocodylian apex predator widespread due to saltwater tolerance

- 10:30 D.R. Leaphart, K. Lindblad, J.W. Moreno-Bernal, C.A. Brochu** Phylogenetic relationships of *Borealosuchus griffithi* and potential challenges to the monophyly of *Borealosuchus*—insights from a new specimen from the Paleocene Ravenscrag Formation of Saskatchewan
- 10:45 S.A. Singh, T. Stubbs, L. Mander, T.F. Rangel, P.B. Holden, N. Edwards** Ecological and environmental controls on crocodyliform diversity and macroevolution in South America across the Cenozoic
- 11:00 D. Hoffman, C.S. Nicholl, P.D. Mannion** Evolution of growth dynamics in Notosuchia informed by osteohistology of the Eocene notosuchian crocodyliform *Sebecus icaeorhinus* with implications for survivorship across the K–Pg mass extinction
- 11:15 A.P. Cossette, J. LeBlanc, N. Pyenson, F. Sakal** The first crocodylian from Qatar: a new species of tomistomine from the early Miocene (Aquitanian and Burdigalian) Dam Formation
- 11:30 R.M. Salas-Gismondi, T.M. Scheyer, M. Delfino, R. Sánchez, J.D. Carrillo-Briceño, C. Zamora-Vega, M.R. Sánchez-Villagra** A systematic reassessment of giant *Gryposuchus* and *Hesperogavialis* species (Crocodylia, Gavialidae) from the late Miocene of Venezuela
- 11:45 D. Li, T. Yang, N. Klein** Bone histology reveals the life history and niche of the oldest crocodylian fossil from Taiwan
- 12:00 S. Bhardwaj Lock, J. Hansford, S. Turvey, A.M. Jukar, P.D. Mannion** Understanding the paleoecology and extinction dynamics of the Cuban crocodile (*Crocodylus rhombifer*) across the Holocene Caribbean

Friday Afternoon, November 14, 2025

Symposium: Evolution of Triassic Non-Marine Tetrapod Communities Through Time II
Meeting Room Hall 1

Moderators: Randall Irmis and Gabriela Sobral

- 1:45 M.D. Ezcurra, F.E. Novas, F.L. Agnolin, L.E. Fiorelli, B. von Baczko, A. Martinelli, J.A. Garcia Marsà, M. Trotteyn, J.B. Desojo** New specimens of *Lewisuchus admixtus* (early Carnian, Argentina) inform about the origin of the dinosaur body plan
- 2:00 Z. Qin, S. Maidment, K. Dollman, L. Meade, I.J. Sansom, V. Fernandez, S. Lautenschlager, R. Butler** Pneumatic cavities and pneumosteam in Triassic dinosauriform vertebrae reveal deep evolutionary origins of the avian respiratory system
- 2:15 C. Griffin, D. Munyikwa, M. Zondo, T. Broderick, S.J. Nesbitt, V. Trinidad, S. Tolan** Large body sizes were widespread among the earliest carnivorous dinosaurs
- 2:30 M. Talanda, D. Drózd, J.B. Desojo, E. Teschner, V. Fernandez, T. Sulej** Early development of aetosaurs (Archosauria, Pseudosuchia)—a key to their success in the Late Triassic ecosystems?
- 2:45 H.E. Burch, M.R. Stocker, A. Dineen, D. Foffa, S. Kryder, E. Keeble, B.T. Kligman, A. Marsh, W.G. Parker, S.J. Nesbitt** Composition, trophic interactions, and community structure of a diverse Upper Triassic microvertebrate assemblage from the Chinle Formation of northeastern Arizona, USA
- 3:00 S. Srivastava, C. Colleary, C. Griffin, S.J. Nesbitt** Combining perspectives on archosaur ontogeny reveals the first multitaxic assemblage of “sphenosuchians” from the same Upper Triassic vertebrate community
- 3:15 T.M. Scheyer, J. Bestwick, J.B. Desojo, F. Miedema, S. Herter, U. Bachmann, B. Pabst** Recent excavations in the Upper Triassic ‘*Plateosaurus*’ graveyard of Frick, Canton Aargau, northern Switzerland, revealed unexpected taxonomic diversity by abundant novel small vertebrate remains (Reptilia, Diapsida)
- 3:30 J. Lovegrove, S. Beeston, P.D. Mannion, P. Upchurch, P.M. Barrett** Dinosaur of the round table: a redescription of the Late Triassic dinosaur *Camelotia borealis* highlights its importance to our understanding of sauropod origins
- 3:45 J. Botha, J. Choiniere, A. Moopen, K. Chapelle, Z.T. Kulik, R.B. Benson** Growth strategy did not influence the survival of sauropodomorph dinosaurs through the end-Triassic extinction
- 4:00 B.T. Kligman, R.L. Whatley, J. Ramezani, A. Marsh, T. Lyson, A.J. Fitch, W.G. Parker, A.K. Behrensmeyer** Microvertebrate bonebeds with radioisotopic dates—bridging the gap in non-marine paleocommunities preceding the end-Triassic extinction

Friday Afternoon, November 14, 2025

Technical Session XII: Mesozoic & Cenozoic Fishes
Meeting Room Hall 4

Moderators: Samuel Cooper and Jennifer Hoefflich

- 1:45 **S. Cooper, E.E. Maxwell** Unique early-diverging pachycormid fish (Pachycormiformes) elucidates the origins and early evolutionary history of the group
- 2:00 **G. Afonso, M. Friedman, M. Pastana, E.J. Hilton** Body elongation in Osteoglossomorpha (Teleostei): evolutionary patterns revealed by fossil taxa
- 2:15 **J. Hoeflich, J. Liu** Understanding North American catfish evolution through hearing reconstruction using Dynamic Finite Element Methods
- 2:30 **J. Liu, M. Newbrey** Opening a window to a warm Earth: age and growth of catostomid fishes from the Eocene Okanagan Highlands in North America
- 2:45 **S. Kim, G. Larocca Conte, J. McCormack, M. Bazzi, P.A. Holroyd, J. Kriwet, T. Mörs** Exploring ecological niche overlap among Eocene sandtiger sharks from La Meseta Formation in Seymour Island, Antarctica
- 3:00 **D. Cirtina, M.E. McNamara, V. Rossi** Melanosome geometry in fish illuminates light modulation strategies through deep time
- 3:15 **J. Cooper, C. Pimiento** Functional diversity of sharks through time: past, present and future
- 3:30 **S. Stumpf, E. Villalobos-Segura, F.A. López-Romero, G. Cuny, J. Kriwet** Decoding the demise of hybodontiforms: phylogenetic clues to a Mesozoic mystery
- 3:45 **M.A. Staggl, E. Straube, P.L. Jambura, E. Villalobos-Segura, F.A. López-Romero, M.J. Steinbauer, M.J. Benton, J. Kriwet** Environmental drivers of neoselachian diversity and turnover across the Mesozoic and Cenozoic
- 4:00 **A. LeBlanc, M. Caldwell** What is ‘Bone of Attachment’? Re-discovering Tomes’ histological sections and its implications for gnathostome tooth attachment tissue homology

Friday Afternoon, November 14, 2025
Technical Session XIII: Euarchontoglires
Meeting Room Hall 8
Moderators: Jukka Jernvall and Thomas Puschel

- 1:45 **M. Rose, J.I. Bloch, D.M. Boyer, S.G. Chester, K.D. Rose, E.J. Sargis, M.T. Silcox** The first known dentally associated postcrania of a microsyopid plesiadapiform (Mammalia, Euarchonta) from the Eocene of Wyoming reveals specialized traits of the wrist and ankle
- 2:00 **S. López-Torres, A.S. Hall, K.E. Jenkins, T. Lehmann, L. Michel, S. Muteti, D.J. Peppe, K.P. McNulty** An exceptionally well-preserved maxilla of *Komba walkeri* (Galagidae, Primates) from the Early Miocene of Rusinga, Kenya
- 2:15 **E.C. Kirk, M. Brown, C.D. Henry, S.V. Olson, B. Rodwell** New late Duchesnean primates from the Tornillo Basin of Texas: implications for primate endemism in North America and the timing of the Duchesnean–Chadronian transition
- 2:30 **R.F. Kay, C. Organ, P.E. Morse, K. Allen, E.C. Kirk** Visual inputs drove neocortex size increases in crown primates: evidence from a comparative analysis of extant and fossil euarchontan endocasts
- 2:45 **Z. Chen** Mitogenomes of the extinct and extant species within the *Nomascus* genus add new insights into gibbon evolution, species identification, and their past movements.
- 3:00 **T.A. Puschel, J. Avaria-Llautureo, A. Meade, J. Baker, S. Nicholson, C. Venditti** The radiation and geographic expansion of primates through diverse climates
- 3:15 **J. Gardner, T. Püschel, S. White, M. Sakamoto, C. Venditti** Hominin body mass increased between but not within species over time
- 3:30 **C. Venditti, T. Püschel, J. Avaria-Llautureo** Female driven reduction of sexual dimorphism in hominins
- 3:45 **C. Badgley, R.C. Terry, F.C. Hardy, T.M. Smiley, D.L. Fox, B. Yanites, S. Hopkins, J. Arroyo-Cabrales** Of mice and mountains: small-mammal diversity and mountain building past and present
- 4:00 **J. Jernvall, A. Kaffash Hoshidar, O.E. Stenberg, O. Hallikas** Linking continuous to discontinuous variation in the increase of mammalian dental complexity

Friday Afternoon, November 14, 2025

Regular Poster Session III
Meeting Room Hall 3
Authors must be present from 4:30 – 6:30 p.m. on Friday, November 14

Symposium: Triassic

- B295 A.M. Turner, E. Sherratt, F. Witzmann, D. Konovalov, J. Bevitt, C. Hoskin, E. Knutsen** Revisiting *Lapillopsis nana* from the Triassic Arcadia Formation of Central Queensland, Australia
- B296 P.E. Olsen, B. Slibeck, N.G. McDonald** Keeping grounded: podathecae, feature scales, and feathers—tracks, simple-minded cladistic thinking, and the insulated ancestral state condition in the Avemetatarsalia
- B297 E. Teschner** Triassic time of transitions: does the high growth pattern variability within Archosauriformes have a palaeoclimatic origin?
- B298 D. Schwarz, S. Lautenschlager, S. Van Wassenbergh, R.R. Schoch** Feeding the dead: I. *Mastodonsaurus giganteus*

Crocs & Turts

- B299 F.J. Torres, E. Huang, G.S. Bever** Genetic polymorphism, morphological evolution, and the origin of turtles
- B300 R. Piechowski, D. Drozd, J.R. Hutchinson, J. Zariwala, T. Szczygielski** Whose tracks are these? 3D reconstruction of the fossil turtle *Proganochelys quenstedtii* to estimate its locomotion—preliminary results
- B301 T.J. Stock, J.F. Parham** A well-preserved specimen of fossil sea turtle sheds light on the evolution of pelagic specializations
- B302 S. Tada, R. Hirayama, S. Kawabe, T. Ikeda, T. Tanaka** Cranial morphology of *Mesodermochelys undulatus* (Testudines: Chelonioidae) and its systematic revision
- B303 B. Radstaak, M. Caldwell, D. Brinkman** Newly described *Chelosphargis advena* specimen from Niobrara, Kansas allows for better understanding of Cretaceous protostegid phylogenetics (Protostegidae, Chelospharginae)
- B304 J.C. Menon, W. Joyce** New data on the homology of the midline elements of the turtle shell exemplified by *Glyptochelone suyckerbuykii* (Ubaghs 1879), an enigmatic fossil sea turtle (Pan-Chelonioidae) from the Late Cretaceous of Europe
- B305 J. Sterli, E. Vlachos, J. Cuitiño, I. Cerda, C. Garnier, M. Buono** The southernmost and first occurrence of a leatherback turtle in the Southern Hemisphere in the Neogene
- B306 C. Mazier, R. Amiot, J. Martin, A. Vinçon-Laugier, L. Leuzinger, L. Kocsis, C. Meyer, J. Anquetin** The ecology of Late Jurassic turtles from Europe revealed by oxygen isotope compositions ($\delta^{18}\text{O}$)
- B307 G.E. Spicher, P. Gueriau, K. Peyer, V. Reneleau, W. Joyce, J. Anquetin** Revision of the turtles from the Upper Jurassic Canjuers lagerstätte (SE France)
- B308 J. Anquetin, N. Bouchema, N. Vallée-Gillette, R. Roch, S. Olive, N. Robin, P. Godefroit, L. Cavin, S. Maksoud, D. Azar** A new Pan-Chelidae (Testudines, Pleurodira) from the Early Cretaceous of the northern margin of Gondwana (Lebanon)
- B309 B.A. Clark, Z. Hannebaum, D.J. Varricchio** High resolution CT scanning reveals a new macrobaenid turtle from the Cenomanian Blackleaf Formation, Montana
- B310 S.M. Bellotti, S.W. Evers, Y. Rollot, W. Joyce, D. Brinkman** Ontogenetic and intraspecific variation in the Campanian baenid turtle *Plesiobaena antiqua*
- B311 H.F. Smith, B. Adrian, B.F. Mohler** New Campanian plastronid turtle material from the San Juan Basin, New Mexico, and a reassessment of the genus *Helopanoplia*
- B312 J.A. Wilson Mantilla, D.M. Mohabey, A. Dhobale, B. Samant, A.J. Tholt, P. Renne, S. Anantharaman, T. Tobin, G.P. Wilson Mantilla** A new kurmademyine turtle from the Late Cretaceous–Paleocene intertrappeans of Upparhatti (Karnataka State), India
- B313 L.C. Girard, W. Joyce** The cranial and mandibular anatomy of soft-shell turtles (Trionychidae): a revised character list and phylogenetic analysis
- B314 Y. Pochat-Cottilloux, S. López-Torres, M. Chroust, G. Georgalis, M. Górká, M. Talanda** First occurrences of Trionychidae (Testudines, Cryptodira) from the Miocene of Poland expand the biogeographic range of the family

- B315 C.M. Simmons, J.K. Lungmus** New *Hesperotestudo* specimen from Western Oklahoma and the functional morphology of the humerus regarding testudine locomotion
- B316 Y. Liaw, C. Tsai** Old turtles, new stories: Pleistocene fossils from Taiwan reveal the past distributions of extant species
- B317 E.H. Bodenham, S. Spiekman, S. Maidment, P. Upchurch, P.D. Mannion** A second species of non-crocodyliform crocodylomorph from the Late Triassic fissure deposits of southwestern UK
- B318 H. George, M. Johnson** Osteology and ecology of the Middle Jurassic teleosauroid thalattosuchian *Neosteneosaurus edwardsi*
- B319 C.C. Pfligersdorffer, M.T. Young, L.M. Witmer, Y. Herrera, O. Katsamenis, S. Brusatte** Hungry for more: neuroanatomical insights into the evolution of macrophagy in metriorhynchid crocodylomorphs
- B320 M.T. Young, E. Wilberg, Y. Herrera** Exploring the phylogenetic relationships of thalattosuchian crocodylomorphs
- B321 M. McKeown, S. Sachs, E. Wilberg** Estimating visual performance in metriorhynchoid thalattosuchians and other Mesozoic marine reptiles using preserved scleral rings
- B322 F.D. Urpia, C.C. Ferreira, R. Delcourt, D. Martucci, T. Fachini, A. Schmaltz Hsiou, M.C. Langer** Tooth morphology of *Pepesuchus deiseae* (Itasuchidae: Notosuchia), a Late Cretaceous crocodyliform from south-central Brazil
- B323 B. Rakotozafy, P.M. O'Connor, J.J. Sertich, J. Groenke, A.H. Turner, L. Ranivoharimanana** Ecomorphology of notosuchian crocodyliforms from Late Cretaceous (Maastrichtian) Maevarano Formation, northwestern Madagascar
- B324 C.S. Nicholl** New notosuchian phylogeny elucidates the complex evolutionary history of sebecid crocodyliforms
- B325 M. Stricklin, A.C. Pritchard, M.R. Stocker** Pain in the neck: first report of vertebral osteomyelitis in *Deinosuchus*
- B326 B.S. Salem, S. Saber, K. Ouda, A.S. Gohar, S. El-Sayed, P.M. O'Connor, H. Sallam** A middle Campanian dyrosaurid skull from Egypt illuminates the origin and early biogeography of the clade
- B327 S.A. Boerman, J. Vellekoop, S. Jouve, M. Rabi, N. Vallée-Gillette, T. Oudoire, T. Smith** Revision of the longirostrine crocodylian *Thoracosaurus isorhynchus* from the Maastrichtian–Danian of northwestern Europe
- B328 L. Barbini, M. Romano, P.D. Mannion** Digital reconstruction of the endocranial anatomy of species of the Cenozoic European crocodylian *Diplocynodon*
- B329 Y. Cho, C. Tsai** New *Alligator* fossils from Taiwan: the oldest record in tropical Asia
- B330 C.A. Brochu, S.K. Drumheller, C. Campisano, G. Tekle, T. Getachew, J. Head** Lucy's peril: a Pliocene crocodile from the Hadar Formation (Afar Regional State, Ethiopia) and its importance to understanding the phylogeny and biogeography of *Crocodylus* in the Cradle of Humanity
- B331 M.I. Bari, D. Chu** First preliminary report on crocodylian remnants from Brahmaputra River Bed, Bangladesh: a key to unveil Holocene fluvial system fauna
- B332 S. Newsom, M. Riegler, O.A. Mendez, L.W. Viñola-López, J.I. Bloch** Assessing the utility of enamel micro-structure in ziphodont crocodyliforms for taxonomy with applications to the fossil record
- B333 M.L. Gold, M.I. Natale Castillo** A freely accessible, digital, cranial atlas of hatchling *Gavialis gangeticus* and notes on the paranasal and paratympanic sinuses, endocranium and associated nervous structures, and ossification of the crista interfenestralis and the first three cervical vertebrae
- B334 M. Turala, B.W. Schubert, J.X. Samuels, D. Gunnin** Reconstructing body size of extinct crocodylians based on skeletal remains
- B335 J. Hansford, E. Saupe, S. Turvey, G. Varnham, M. Grace, H. Ma, P.D. Mannion** Incorporating the fossil record into modern species recovery objectives

Paleontological Practices

- B336 D. Levering** A sea of change: breaking down Sternberg Museum Science Camps as an alternative funding model in a time of crisis
- B337 L. Kells, A. Wang, J. Shatz, T. Sato** Fossil Preparation Training Program at the American Museum of Natural History

- B338 A.K. Hastings, G. DeVault** Pathologies and poop: developing an education kit for the Wannagan Creek Fossil Collection (Paleocene; North Dakota, USA)
- B339 L. Herzog** Science education through the lens of paleontology laboratory exhibit design at the North Carolina Museum of Natural Sciences
- B340 T.M. Seerane, G.M. Bybee, P.A. Viglietti** An analysis of *Lystrosaurus* Calcium apatite: insights into the survival strategies across the Permo–Triassic boundary
- B341 L.J. Hart, L. Tuohilampi** Exploring the benefits of palaeontology for education in Australia
- B342 A. Biju** Holistic grassroots outreach methods in India and their effectiveness in paleontological education
- B343 L.D. White, D.M. Leong** Bringing paleontology to life: engaging community college students through hands-on, specimen-based labs at the UC Museum of Paleontology
- B344 G.R. Hancock, L.M. Kastroll** The Camouflage Dinosaur Project: teaching ecology and evolution by hiding dinosaurs
- B345 R.J. Gay, C.I. Westermire, S.M. Lukowski, S. Werbeach, S. Rivera, A.E. Hall, T. Tran, E. Seymour** Regional implementation of a non-intrusive evaluation tool to assess program and educational quality
- B346 E. Bamforth** From Paddles to *Pachyrhinosaurus*: A novel public program provides a river raft-based fossil experience in northwest Alberta, Canada
- B347 M. Cone** Using pop-culture phenomenon to engage wider audiences in museum and informal learning spaces: integrating demographic and survey data to inform specialized outreach strategies for high-impact fossil programming
- B348 D. Anduza, E. Warner-Cowgill, J.I. Kirkland, D.D. DeBlieux, K.C. Rayburn, Q.C. Hawkins** LIVE from the field: paleontological fieldwork livestreams as impactful outreach
- B349 E. Koren, C. Redman, Y. Sarubbi Jacks, R. Souberlich, C. Colman, A.D. Apgar, I.S. Hutchinson, J.R. Moore** From the field to the feed: engaging the public with real-time paleontological research on the Pilcomayo megafan in Paraguay
- B350 A.E. Hall, M. Widdicombe** Virtual Fossil Friday: expanding museum education beyond walls and borders
- B351 B.K. Burke, A.E. Hall, B. Martens, A. Konrad** Strengthening the paleontological network: the case for sister museum partnerships between large and small institutions
- B352 M.L. Gold** Patching the ‘leaky pipeline’ in paleontology through *DrNeurosaurus*, a YouTube channel showcasing women paleontologists
- B353 K.L. Koeller, J.L. King** Dismantling barriers: grassroots inclusivity builds professional development in paleontology
- B354 A. Milner, J.C. Buchwitz, H.A. Carter, D. Anduza, C.A. Suarez, J.W. Martz, R.J. Gay, J.R. Lively, R. Irmis, J.I. Kirkland** The Substation Quarry (earliest Jurassic Moenave Formation): infrastructure development results in the discovery of important bonebeds through the cooperation of city government and city museum
- B355 V.D. Neto, M. Lacerda, A. Machado, F. Preto, R.C. da Silva, M.B. Soares, F. Pinheiro, A.W. Kellner** The oldest dinosaur fossils ever collected in the Triassic of Brazil
- B356 M.E. Jones, E.L. Bernard, S. Pappa, N.F. Adams, M.O. Day, S. Maidment** The fossil vertebrate collections at the Natural History Museum, London, UK
- B357 E.G. Flint, J. Hoffman** Getting a head: the *Mammuthus exilis* Crania Preservation Project
- B358 P.A. Holroyd** Recovering lost contextual data from early excavations at the Rancho La Brea and McKittrick tar seeps, California, USA, and disambiguating imperfect data
- B359 G. DeVault, A.K. Hastings** Catalog number woes: strategies for digitizing a poorly-cataloged collection
- B360 V.R. Rhue** What goes in must come out: principles for leveraging relational databases to track transactions
- B361 J. Słowiak, K. Przestrzelska, T. Szczygielski** Conservation of the Mongolian dinosaur collection of the Polish Academy of Sciences
- B362 G. Wilbert, K. Davies, J.K. Lungmus** Restoring scientific access to historically mounted fossils containing asbestos-based texturing

- B363 W. Mones, T. Sato** Optimizing fossil repair: white graphite, pipe cleaners, and scaffold with adjustable ‘finger’
- B364 B.J. Rotenberg, K. Abrams** Splash proof! Nesting sieve bins: a novel preparation method that prioritizes safety and efficiency in chemical preparation of fossiliferous concretions
- B365 T. Sato** A practical process for repairing and reinforcing damaged field jackets
- B366 V. Trinidad, R.W. McCune, T.G. Kaye, B.R. Peacock, M. Whitney** Methodological approaches to microfossil data collection: sorting vs. CT-scanning
- B367 E.I. De Santo, C. Redman, J.R. Moore** Tiny teeth make tiny holes: breakage patterns of microfossils from microvertebrates in the Chadronian and Orellan periods from the White River Group
- B368 J.K. Lubeek** A microtaphonomic assessment of Pleistocene fossiliferous cave sediments: implications for skeletal preservation of *Gigantopithecus blacki* in Guangxi, southern China
- B369 P. Kapur, B. Shipps, Z. Zamudio, M. Vandenberg, C.A. Sidor** 3-D modeling through a paleobiological lens: evaluating iPhone photogrammetry for assessing oral morphological complexity (via OPCr) in extant turtle skulls relative to micro-CT and DSLR techniques
- B370 Z. Zamudio, B. Shipps, P. Kapur, M. Vandenberg, C.A. Sidor** A comparison of 3D models created using photogrammetry and 3D models created using CT scanning using Orientation Patch Count (OPCr)
- B371 A.H. Crane, F. Alvarez-Borges, K.E. Rankin, C.E. Clarkin, K.A. Williams, N.J. Gostling** Limited-angle computed tomography (LACT): a simple approach to improve scan quality for plate-like fossils
- B372 A. Lanzetti** From slices to structures: speeding up segmentation of CT images of fossils using AI-assisted tools
- B373 M.G. Price** Between discovery and destruction: scientific access vs. conservation in a Pierre Shale crocodyliform
- B374 M. Hullot, X. Jordana, G. Billet, H. Gomes Rodrigues** Overcoming the challenges presented by the study of enamel histology in extinct mammalian orders: case study of toxodont notoungulates
- B375 E. Vickers** Fungal spores found in the dental pulp chamber of *Enchodus* ray finned fish (late Cretaceous) by scanning electron microscopy.
- B376 K. Prehm, B. Goode, K. Shimada** Using filtered longwave ultraviolet light to detect fossil shark teeth at night in the Upper Cretaceous Cliff House Sandstone Formation of the San Juan Basin in New Mexico, USA
- B377 S. Halvadwala** Validation of predictive modelling with field observation in the vertebrate paleontology of the Central Narmada Valley
- B378 N.L. Hiotis, M.N. Hutchinson, E. Sherratt, E.H. Reed** Character matrices vs. geometric morphometrics: evaluating uncertainty in frog fossil identification amid missing data
- B379 C. Zhang** Bayesian tip-dating integrating discrete and continuous morphological characters
- B380 J. Gardner, J. Baker, C. Venditti, C. Organ** Phylogenetic prediction outperforms other methods in simulated and real data
- B381 L. King** Dicynodonts, taxonomic pareidolia, and geomorphology: a historical and ethnographic reassessment of South African cave art
- B382 L.C. Blincoe, E. Dunne, S. Lautenschlager** The price of preservation: commercial fossil purchasing, and the longevity of paleontological museums
- B383 F. Bibi** I’m just here for the fossils: Academic responsibility, political injustice, and the paleontologist as public intellectual
- Mesozoic & Cenozoic Fishes**
- B384 D. Conedera, A. Tintori, R. Gatto, S. Monari** In situ otoliths from Triassic Fishes
- B385 J. Li, Z. Sun** An unusual hybodontoid skull from the Middle Triassic of South China
- B386 D.S. Jasicki-Velin, M.R. Stocker, C. Flis, A. Marsh, D. Foffa, B.T. Kligman, S.J. Nesbitt** Bridging gaps in the fossil record: diagnostic features of fossilized shark cartilage from the Upper Triassic of southwestern USA

- B387 C. Duffin, D.J. Ward, B.H. Lauer, R. Lauer** New holomorphic specimen of *Hybodus fraasi* Brown, 1900—a very rare hybodont shark from the Late Jurassic of the Solnhofen Archipelago
- B388 K. Spence, J. Witts, E.L. Bernard, J. Brown, R. Twitchett** The size-temperature relationship in *Ctenothrissa* (Ctenothrissiformes) and *Macropoma* (Coelacanthiformes) in the Late Cretaceous UK Chalk Sea
- B389 R. Twitchett, C. Underwood, J. Witts, D. Tangunan, E.L. Bernard, S. Sinha, M. Sharma** Sharks of the English Chalk (Upper Cretaceous); extracting new data from classic collections
- B390 J. Doyon** The Late Cretaceous fishes of Lac des Bois, Northwest Territories, Canada: implications for marine conservation
- B391 E. Garcia, K. Shimada** The oldest North American occurrence of the extinct ‘snouted’ bony fish genus *Plethodus* (Tsselfatiiformes, Plethodidae) from the mid-Cenomanian of Texas, USA
- B392 M.R. Sánchez-Villagra, J.D. Carrillo-Briceño, T. Argyriou** Marine ray-finned fishes from the Cenomanian–Turonian of the La Luna Formation in Venezuela illuminate the Late Cretaceous biodiversity of the Proto-Caribbean
- B393 D. Ehret, K. Claeson, P.E. Olsen, J. Benedict** Late Cretaceous (Turonian) hybodont (Chondrichthyes, Hybodontiformes) egg capsules from New Jersey, USA
- B394 J. Liston, A.E. Maltese** The Coniacian dating game: Niobrara predatory behaviour and the dangers of swiping right revealed by palaeopathology
- B395 D. Brinkman, L.E. Nelson, A.M. Murray** Clarifying the taxonomy of North American *Enchodus* species: revisiting the specimens
- B396 A.L. Atwater, A.E. Maltese, M.J. Everhart** From feeding to fossil feces: connecting enigmatic trace fossils to a likely tracemaker in the Niobrara Formation of Western Kansas
- B397 J.W. Krakora** Shared growth changes in the dentary of *Cyclurus fragosus* and *Melvius thomasi* (Actinopterygii, Amiidae) from the Hell Creek Formation of Southeastern Montana: Evidence for developmental underpinnings of species differences
- B398 R.W. McCune, T.G. Kaye, B.R. Peacock, M. Whitney** A pathological description of a Late Cretaceous teleost vertebra: evidence of spinal trauma reveals Schmorl’s node
- B399 J.G. Westgaard, H.D. Hanks, K. Shimada** Chondrichthyan teeth from Upper Cretaceous Coleraine Formation at the Hill Annex paleontological site in northern Minnesota, USA
- B400 A. Maréchal, A.S. Marques, M. Polcyn, A.S. Schulp, L.L. Jacobs** The latest Cretaceous fish fauna from the Mocuio Formation of Bentiaba (Namibe Basin, Angola)
- B401 E. Villalobos-Segura, S. Stumpf, M. Amadori, F.A. López-Romero, J. Kriwet** Phylogenetic insights into Mesozoic elasmobranch evolution
- B402 M. Kane, T.R. Simoes, T.A. Gates** A total evidence phylogeny of Carcharhiniformes sharks since the Cretaceous using dental morphological characters and genomic data
- B403 L.V. Williams, C. Pimiento, D. Silvestro, W. Allen** Are functional traits and tooth shapes conserved along the shark tree of life?
- B404 M. Amadori, M.A. Staggl, F.H. Mollen, E. Villalobos-Segura, J. Kriwet** Lines of distinction: morphometric tools for exploring past and present taxonomic diversities of galeomorph sharks
- B405 D.M. Leong, D. Kim, J. Liu** The cephalic lateral line in gars (Lepisosteidae): unique tubule structures and interspecific variations
- B406 L. Ridolfi, A. Bahrami, M. Yazdi, A.E. Schröder, G. Marramà, G. Carnevale** Anatomy and phylogenetic relationships of two new Eocene species of *Argyropelecus* (Sternoptychidae) from the Pabdeh Formation, Iran
- B407 M. Montalvo, M. Friedman, E.J. Hilton** Osteology of palaeorhynchids from the Eocene Habib Rahi formation of Pakistan
- B408 PROGRAM ADJUSTMENT**
- B409 J.R. Carr, J.T. Deckhut, J.A. Case** The yabby crusher, a latest Oligocene, freshwater, durophagous fish from South Australia
- B410 M.P. Weinberg, E.Y. Hallett, J.N. Cerasoni, Y.E. Stuart** Threespine stickleback (*Gasterosteus doryssus*) fossil fish reveal taphonomic factors throughout Miocene time series

- B411 K. Reichmann, M. Mahoney, D. Long, K. Shimada** Body length estimates of the Miocene crocodile shark, *Pseudocarcharias* sp. (Lamniformes: Pseudocarchariidae) based on the extant crocodile shark, *P. kamoharai*
- B412 K. Shimada, M. Elstrup, H. Lauridsen, T. Sørensen, M. Siversson** The rediscovery of 'Bendix-Almgreen's' gigantic vertebral specimen of the extinct megatooth shark, *Otodus megalodon* (Lamniformes: Otodontidae), from the Upper Miocene Gram Formation in Denmark

B413 E. Furman, A. Bush, J. Mead Quaternary fish diversity in the southern Black Hills of South Dakota

Euarchontoglires

B414 J.E. Stone, M. Godinot, S.L. Toussaint, D.M. Boyer Adapiform (Primates) tarsal assemblage from the Prémontéré Eocene fossil locality in France represents multiple species previously only known from dental material

B415 S.L. Toussaint, M. Godinot, S. Ladeveze Reinvestigation of the auditory bulla and postcranium of the *Plesiadapis* genus and its implications for the phylogenetic affinities of plesiadapiforms

B416 PROGRAM ADJUSTMENT

B417 L. Zhang, B. Du, R. Hu, L. Zhao Molar enamel thickness of late Miocene *Lufengpithecus lufengensis*: dietary adaptations and paleoecological implications

B418 R. Germano, G. Rocha Leite, A. V. Araújo, M. Dantas, A. Liparini, J. Fleagle, H.I. de Araújo-Júnior, T. Rodrigues Comparative dental microwear texture analyses of fossil, subfossil, and modern platyrrhine monkeys: implications for diet, adaptation, and sexual dimorphism

B419 K. Suraprasit, K. Westaway, M. Duval, L. Tze Tshen, H. Bocherens A new late middle Pleistocene fauna yielding *Pongo* from Krabi, peninsular Thailand

B420 G.A. Assance, M. Lang, M.T. Silcox Comparative sulcal morphology of Malagasy subfossil lemurs

B421 H.E. Anderson, A.M. Burrows, C.J. Law, A.J. Lis, L. Mulvey, K.I. Nekaris, K.R. Selig, M.T. Silcox, S. López-Torres Exploring interrelationships between fossil and extant lorises (Strepsirrhini, Primates) and the question of their biogeographic origins

B422 K. Huirata, M.O. Kubo, M. Takai Dental microwear texture analysis revealed intraspecific dietary variation of Japanese macaques (*Macaca fuscata*)

B423 R. Kumar, R. Patnaik, M. Bansal The biogeographical history of Murinae: insights from fossils and extant diversity

B424 D. Choudhary, C.C. Gilbert, D.J. Peppe, C. Campisano, R. Patnaik Refining Miocene primate timelines: new insights from rodent biochronology and magnetostratigraphy of the Miocene Siwaliks at Ramnagar, India

B425 M. Bilgin, P. Joniak, F. Goktas, P. Pelaez-Campomanes, L.W. van den Hoek Ostende, S. Mayda Belenyenice, a key section for understanding biodiversity shifts in the Early Miocene small mammal fauna of Anatolia

B426 J. López-García, E. Meseguer-Despons, J. Oliva-Simó, A. Canals-Salomó, B. Martínez-Navarro, L. Rook, J. Madurell-Malapeira Biochronological insights from a new Early Pleistocene karstic site complex in eastern Iberia: the rodent assemblages from *Els Saldonets* (Vilanova d'Alcolea, Castellón, Spain)

B427 E. Guyonneau, H. Gomes Rodrigues, G. Billet Evolution of a highly convergent dental trait: how to quantify and analyse the multiple independent acquisitions of hysodonty in rodents?

B428 C. Pfaff, I. Ruf, A. LeMaître Back to the past: the middle and inner ear of selected extinct and extant rodents and its morpho-functional implications

B429 J.H. Clonice, J.X. Samuels Ecomorphological analysis of lagomorph postcrania reveals locomotor habits of extinct species

B430 P. Morris, R.C. Terry Out of the frying pan, into the fire: actualistic taphonomy of heat-induced bone damage and implications for Quaternary assemblages

Saturday Morning, November 15, 2025
Technical Session XIV: Mammalian Phylogeny & Function
Meeting Room Hall 1
Moderators: Robin Beck and Julia Schultz

- 8:00 O.A. Goodchild, A.M. Jukar** Taxonomy and evolution of North American Gomphotheriinae (Mammalia, Proboscidea): a reassessment of proposed holotypes housed at the American Museum of Natural History and preliminary phylogenetic analysis
- 8:15 K. Le Verger, F. Allione, B. Wang, B. Weisse, A. Ijspeert, M.R. Sánchez-Villagra, T.M. Scheyer, A. Jusufi** The devastating tail strikes in glyptodonts in the light of phylogeny and paleorobotics
- 8:30 T.J. Gaudin, D.A. Iurino, F. Costanzo, N. Vega, G. Tirao, I. Soto, A. Boscaini** Endocranial cavity in extant and extinct anteaters (Xenarthra, Vermilingua)
- 8:45 D. de Vries, J. Cadby, A. Hall, L. Smith, A. Gao, D.A. Croft, R. Engelman, R.M. Beck** Dietary reconstructions and disparity through time of South American fossil metatherians using dental topography
- 9:00 L. Meade, E. Panciroli, S. Walsh, R. Butler, R.B. Benson** A climbing carnivorous eutriconodont mammal exceptionally preserved from the Middle Jurassic of Skye, Scotland
- 9:15 A.L. Wisniewski, K.R. Selig, D.K. Anderson, B. Rodwell, L.N. Weaver** Evolvability, evolutionary currencies, and the decline of multituberculates in North America
- 9:30 A. Knapp, R. Marek, D. Nganga, R. Felice** Sociality and ecology drive three dimensional brain shape evolution in mammals
- 9:45 V. Weisbecker, R. Mitchell** Comparative finite element analysis of differently sized mammalian crania reveals substantial mechanical impact of size variation on absolute biomechanical performance
- 10:00** Coffee Break
- 10:15 H.Z. Fulghum, D. Grossnickle, S.M. Smith, P. Polly** Many-to-one relationships of tribosphenic molar morphology and diet in mammals
- 10:30 J.A. Schultz, L.N. Weaver, K. Jäger, D. Grossnickle** An evolutionary conundrum: the mammalian medial pterygoid muscle
- 10:45 K. Walls, L. DeSantis** Mammalian functional diversity and functional rarity in North America throughout the Cenozoic
- 11:00 Y.U. Braumuller, L. Zel, R. Vries, S. Dullaart, J. Miller, L.W. van den Hoek Ostende** Bringing the past into the present, ecometric approaches to reconstruct the paleoenvironments of the Greco-Iranian bioprovince
- 11:15 A. Alfsen, C. de Muizon, G. Bianucci, O. Lambert, R.M. Salas-Gismondi, M. Urbina, A. Kaffler, M. McCurry, O. Hampe, E. Amson** Broadening the semi-aquatic scene: first quantification of the diversity of microanatomical patterns in pinnipeds and its relevance for early cetaceans
- 11:30 M. Qi, X. Lu, Y. Li, J.N. Keating, D. Pisani, P. Donoghue** The identification of Cretaceous crown placentals is hindered by incomplete fossil records and substantial morphological similarity
- 11:45 S. Brusatte, R.M. Beck, O.C. Bertrand, F.A. Perini, H. Püschel, E. Rossi, S.L. Shelley, J.R. Wible, T. Williamson, S.P. Zack** Resolving early placental mammal relationships with morphological and molecular data
- 12:00 R.M. Beck** 'Difficult' nodes in placental mammal phylogeny and the timescale of mammal evolution

Saturday Morning, November 15, 2025

Technical Session XV: Reptile'O'Rama

Meeting Room Hall 4

Moderators: Urmi Chakraborty and Gabriel Mestriner

- 8:00 T. Maho, J. Bevitt, R. Reisz** Captorhinid premaxillary dentition reveals the pathological phenomenon of tooth socket closure
- 8:15 P.L. Knaus, J. Fröbisch** Orbit and scleral ring dimensions suggest nocturnality at the origin of amniotes and early diversification of diel activity patterns
- 8:30 A. Rebillard, A. Jannel, L. Marchetti, M. MacDougall, C. Hamann, J.S. Steyer, G. Townsend, J. Fröbisch** Tetrapod feeding remains: the first bromalites from Bromacker (early Permian, Germany)
- 8:45 M. MacDougall, J. Ponstein, J. Fröbisch** Computed tomography (CT) data reveals new insights into the evolution of herbivory in bolosaurian reptiles
- 9:00 J. Yi, J. Liu, L. Xie** The Chinese pareiasaurs revised: taxonomical validity and phylogenetic framework of late Permian pareiasaurs

- 9:15 V. Buffa, J. Kibii, S. Ngui, J. Benoit** A newly discovered fossil reptile fauna with preserved skin impressions from the Permo–Triassic Maji ya Chumvi Formation, southeastern Kenya
- 9:30 I. Pugh, M.P. Sodano, S.J. Nesbitt** We found the rest in the cabinet: reassessing the holotype of the Late Triassic drepanosauromorph *Dolabrosaurus aquatilis* reveals additional elements and unexpected hook-and-pull digging adaptations
- 9:45 G. Mestriner, A. LeBlanc, G.F. Funston, D. Evans, D. Casali, S.J. Nesbitt, A.A. Rytel, S. Herter, J. Marsola, M.C. Langer** Evolutionary history of tooth attachment systems in Archosauromorpha: understanding the origin and ontogeny of archosaurian thecodonty
- 10:00** Coffee Break
- 10:15 W. Wang, N. Fraser, S. Spiekman, C. Li** A Middle Triassic marine tanysaurian with soft tissue preservation from Yunnan, China
- 10:30 D.R. Pittinger, A. Marsh, B.T. Kligman, Y. Haridy** Caudal autotomy in tanystropheids (Reptilia, Tanysauria): the first known occurrence of tail shedding in archosauromorphs
- 10:45 M. Whitney, T.I. Prause, C.H. Woolley, N.D. Smith, P. Makovicky, C.A. Sidor** Long bone histology of Early Triassic Antarctic reptiles reveals ectothermic adaptations to polar environments
- 11:00 U. Chakraborty, D. Mukherjee, S. Ray** Neural anatomy and ontogenetic trajectories of rhynchosaurian braincase from the Upper Triassic of India
- 11:15 S. Sen, S. Ray** Assessing the diverse avemetatarsalian (Diapsida, Archosauria) record from the Upper Triassic of India
- 11:30 S. Wills, S.T. Poon** AI and deep learning in taxonomy
- 11:45 M.O. Kubo, K. Usami** Mechanical insights into microwear formation: puncture experiments with alligator teeth using foods of varying hardness
- 12:00 S.K. Drumheller, H.M. Maddox, O.J. Singleton, C.A. Boyd, M.L. Householder, C. Woodruff, J. McHugh, H. Noel, J. DeBruyn** Rethinking dinosaur ‘mummies’: insights from a long-term study of reptilian decomposition

Saturday Morning, November 15, 2025
Technical Session XVI: Dinosauria II: Aves
Meeting Room Hall 8
Moderators: Beatriz Caraza del Hoyo and Olivia Plateau

- 8:00 A.H. Crane** Novel insights from modern birds inform non-destructive criteria for identifying sex-specific bone tissue in fossil avemetatarsalians
- 8:15 R. Marek, R. Felice** The emergence of the surrogate forelimb: correlated evolution of the neck and forelimb across the theropod-bird transition
- 8:30 J.N. Tang, S. Lautenschlager, D.J. Field, T. Stubbs** Bird-like orbits originated in maniraptoriform dinosaurs
- 8:45 J. O’Connor, H. Hu, A. Clark, P. Kuo, M. Fabbri, H. Zhang, A. Shinya, C. Van Beek, M. Wang, J. Lu** CT-derived morphological data reveals early musculoskeletal adaptations in *Archaeopteryx*
- 9:00 P.E. Nixon-Hermansen, C. Sullivan** Trunk anatomy of American white pelican (*Pelecanus erythrorhynchos*) suggests exhalatory function of unusual sternal rib flange in the long-tailed Early Cretaceous bird *Jeholornis prima*
- 9:15 O.E. Demuth, J. Benito, K.E. Widrig, J. O’Connor, G. Kinney-Broderick, S.E. Warner, J.R. Hutchinson, D.J. Field** Flight of early birds—insights from joint mobility
- 9:30 B. Walters, Y. Liu, E. Rayfield, P. Donoghue** Theoretical morphospace shows most flying vertebrates evolve suboptimal wing shapes for flight style
- 9:45 L.N. Wilson, Z.S. Morris, A. Kalmbach, J. Botelho, C. Griffin** The evolution of palatal development in the common ancestor of living birds
- 10:00** Coffee Break
- 10:15 O. Plateau, G. Navalon, J. Benito, D.J. Field** Revisiting the pterygoid-palatine complex: ontogenetic and ecological insights into evolution of the crown bird palate

- 10:30 J. Benito, E. Steell, M. Fabbri, K.E. Widrig, B.S. Bhullar, D.J. Field** A phylogenetic plesiomorphy zone obscures the early evolutionary history of crown birds
- 10:45 D.J. Field, J. Lee** Macroevolutionary analysis of developmental mode illuminates underpinnings of the neoavian radiation
- 11:00 S.N. Somogyi, J. Lee, G.S. Bever, D.J. Field** Hemiplasy helps explain high rates of apparent morphological convergence in neoavian birds
- 11:15 G. Navalon, S.W. Evers, E. Hughes, A. Bjarnason, L.M. Chiappe, D.J. Field, R.B. Benson** Evolution of avian vestibular apparatus morphology is highly controlled by foramen magnum orientation
- 11:30 J.W. Oyston, M. May, R. Felice** Brain size dependent speciation and extinction rates in birds and the cognitive buffer hypothesis
- 11:45 K.A. Beguesse, E. Hyland, L.E. Zanno** Effects of select temperature, chemical, and sample pre-treatment processes on stable and clumped isotope compositions of extant avian bone
- 12:00 B. Carazo del Hoyo, D. Cirtina, A. Quigley, H. Bean, V. Rossi, S. Ito, K. Wakamatsu, S.M. Webb, M.E. McNamara** Understanding the functional evolution of melanin in birds and mammals using dual chemical approaches

Saturday Afternoon, November 15, 2025
Symposium: Multidisciplinary Approaches to Skull Function & Evolution
Meeting Room Hall 1
Moderators: Stephan Lautenschlager and Laura Porro

- 1:45 R. Dearden, A. Lanzetti, S. Giles, Z. Johanson, L. Schnetz, A.S. Jones, S. Lautenschlager, K. Dollman, V. Fernandez, I.J. Sansom** Building the earliest vertebrate skull—microtomography sheds light on endoskeletal cranial construction in the Ordovician vertebrate *Eriptychius americanus*
- 2:00 J.D. Fortner, K. Middleton, C. Holliday** Finite element modeling reveals effect of jaw muscles on intramandibular joint flexibility and strain in taxa with differently built mandibles
- 2:15 A. Ballell, H. Dutel, M. Fabbri, C. Hammond, A. Herrel, E. Rayfield** Innovation in jaw musculature drives the evolution of temporal fenestration patterns of the amniote skull
- 2:30 T.I. Pollock, P. Milla Carmona, C. Caldicott, A. Ballell, E. Rayfield, P. Donoghue, A.R. Evans** The point of it all: exploring constraints on pointed tooth form in tetrapods
- 2:45 K. Garland, E.M. Hay, D.J. Field, A.S. Mohamed, T.L. Green, P.M. Gignac, M.R. Sánchez-Villagra, K.L. Buchanan, A.R. Evans** Uncovering the evolutionary origins and developmental foundations of beak shape in theropods using a universal rule of growth
- 3:00 J. Bright, P.J. Morris, V. Raju, A. Wood-Bailey, P. Watson** Computational modelling of cranial kinesis in birds: risks and rewards
- 3:15 A.S. Tucker, S. Johnston, M. Renfree, N. Anthwal** Developmental biology shedding light on evolution of the mammalian ear
- 3:30 H. Higashiyama** A tale of two premaxillae: from ancestral jaw tip to mammalian nose
- 3:45 A.C. Sharp, A. Wood-Bailey, P.G. Cox** Multidisciplinary approaches to the study of evolution and function of unique cranial morphology in Lagomorpha
- 4:00 Y. Pommery, D. Koyabu, F. Meguro, V. Tu, T. Ngamprasertwong, T. Wannaprasert, T. Nojiri, B. Moison, A. Sadier, L.A. Wilson** Can the evolution and origins of laryngeal echolocation in bats be revealed by examining cranial growth rate?

Saturday Afternoon, November 15, 2025
Technical Session XVII: Dinosauria III: Macroevolution & Sauropodomorpha
Meeting Room Hall 4
Moderators: Stephanie Lechki and Qi Zhao

- 1:45 Y. Ke, M.W. Ferguson, A. LeBlanc** When the tooth clock stops ticking: ontogenetic changes in dentine production skew replacement rate estimates in Archosauria

- 2:00 S.C. Lechki, R.B. Benson** The explanatory power of energetic fitness models across living amniotes and extinct non-avian dinosaurs
- 2:15 P.M. Barrett, S. Maidment** Solving the enigma of small-bodied ornithischian dinosaur diversity in the Morrison Formation (Upper Jurassic) of the western USA
- 2:30 P. Upchurch, J.E. Hall, P.D. Mannion, S. Bilbey** A new *Haplocanthosaurus*-like sauropod dinosaur from the Morrison Formation of Utah, and its implications for the origin of Diplodocoidea
- 2:45 T. Sethapanichsakul, S. Manitkoon, S. Khansubha, R. Hanta, P.D. Mannion, P. Upchurch** First sauropod dinosaur from the Lower Cretaceous Khok Kruat Formation of Thailand: expanding the diversity of somphospondylan titanosauriforms in Southeast Asia
- 3:00 A.A. Chiarenza, L.E. Zanno, C. Tsogtbaatar, V. Díez Díaz, B. Mainbayar, H. Saegusa, P. Upchurch, P.D. Mannion** Integrative redescription of the Mongolian titanosaur *Opisthocoelicaudia skarzynskii* clarifies titanosaurian evolution, dispersal, and ecological responses to Cretaceous hyperthermal events
- 3:15 S.L. Arriscorreta, M.T. Hiltunen, I. Huffaker, R. Scheetz, B. Britt** The first dinosaur eggs from the Yellow Cat Member, Cedar Mountain Formation (Early Cretaceous, Barremian), Utah, USA
- 3:30 B.W. Griffin, T.L. Prescott, P.L. Falkingham** Track robusticity: subsurface layers consistently capture motion irrespective of substrate properties
- 3:45 Q. Zhao, T. Guo, M. Hao** Wedl tunnels in dinosaur and extant vertebrates: reevaluating fungal bioerosion in paleohistology
- 4:00 P. Kaskes, S. Goderis, A.S. Schulp, P. Godefroit, P. Claeys** Blasting dinosaurs in Brussels: tracing the taphonomic history of Cretaceous bonebeds using μ XRF and LA-ICP-MS

Saturday Afternoon, November 15, 2025
Technical Session XVIII: Early Tetrapoda & Lissamphibia
Meeting Room Hall 8
Moderators: Per Ahlberg and Nadia Fröbisch

- 1:45 P.E. Ahlberg** A rich new tetrapod locality from the latest Devonian of Greenland
- 2:00 M. Coates, B. Otoo, A. Caron, K. Tietjen, M. Ruta** Amniote traits and terrestriality in an early amphibian
- 2:15 T.R. Smithson, M. Ruta, B. Otoo, L.B. Porro** A new diminutive tetrapod from the Tournaisian of Burnmouth, Scotland, revealed by microcomputed tomography
- 2:30 C. So, M.E. Montgomery, N.I. Cookson, J. Pardo, H.C. Maddin, H. Sues, A. Mann** Taxonomic diversity and development of Late Carboniferous amphibamiforms from the Mazon Creek Lagerstätte
- 2:45 N.B. Fröbisch, C.M. Perez-Ben, F. Witzmann, V. Bothe** Evolutionary history of limb regeneration in lissamphibians: new evidence from two paleozoic stem-group species
- 3:00 P.I. Heise, J.K. Lungmus** Forelimb disparity in Late Paleozoic tetrapods: a geometric morphometric approach
- 3:15 T. Brewington, R. Blob, R. Wunderlich, M. Iijima, D. Munteanu, S. Swisher, A. Kellerhal** Polydactyl precursors: insights into early tetrapod terrestrial locomotion from polydactyl alligator
- 3:30 D. Konietzko-Meier, N. Klein, F. Witzmann, N.B. Fröbisch, E. Griebeler, E. Amson, E. Mujal, D. Schwarz, R.R. Schoch** Forever young: larval fish-like bone matrix in the long bones of Permian temnospondyls *Sclerocephalus* and *Apateon*
- 3:45 R. Moreno** Bioapatite geochemistry reveals paleoenvironmental conditions in Lower Keuper (Middle Triassic) fossil sites of Baden-Württemberg, Germany
- 4:00 A. Quigley, B. Carazo del Hoyo, D. Cirtina, V. Rossi, C. McCarney, J. Brennan, S. Ziapour Razlighli, M.E. McNamara** Decoupled evolution of melanosome geometry and chemistry in amphibians and reptiles

Saturday Afternoon, November 15, 2025
Regular Poster Session IV
Meeting Room Hall 3
Authors must be present from 4:30 – 6:30 p.m. on Saturday, November 15

Mammalian Phylogeny & Function

- B431 L. Hautier, R. Tabuce, K.E. Kassegne, Y.Z. Amoudji, G. Guinot** Unexpected proboscidean diversity in the middle Eocene phosphate deposits of Togo
- B432 T.G. Bedane, H. Mackaye, J. Boisserie** New data on morphological evolution and dietary adaptations of *Elephas recki* from the Plio-Pleistocene Shungura Formation (Lower Omo Valley, Ethiopia)
- B433 H. Zhang, A. Lister, M.P. Ferretti, J. Saarinen, J. Madurell-Malapeira** The latest well-dated occurrence of *Mammuthus meridionalis* in Western Eurasia: insights from the Vallparadis Section
- B434 D. Biswas, C. Tsai** A lost giant and its diet: body mass and paleoecology of *Palaeoloxodon* from the Pleistocene of Taiwan
- B435 R. Bobe, J. d'Oliveira Coelho, M. Doyle Boyd, E. Lourenço, L. Balate, S. Tagir, P. Jena, W.J. Sanders, M. Bamford, S. Carvalho** The coastal forests of eastern Africa as an evolutionary hotspot: hypotheses and new data
- B436 P.M. Mbatha, L.N. Leakey, J. Saarinen, J. Jernvall, W.J. Sanders, C. Feibel, A. Kaakinen, A. Lister, E. Muoki, S. Ngui** Proboscidean postcranial morphometrics and ecomorphology and their utility in reconstructing past environments: the case of the Koobi Fora Area 123 *Elephas atavus* skeleton
- B437 R.L. Anemone, R. Bobe, J.D. Coelho, T. Püschel, M. Sier, C. Mendes, W. Archer, D. Presnyakova, E. Paixão, S. Carvalho** A new giant fossil hyracoid (Mammalia, Afrotheria) from the southern East African Rift in Gorongosa National Park, Mozambique
- B438 M. Losco, T. Martin** Tooth function and mastication in Paleogene Hyracoidea
- B439 G. Aguirre-Fernández, K. Kissling, K. Le Verger, L. Costeur, L. Hautier** Shape and allometry of the sirenian brain and inner ear, with emphasis on Steller's sea cow (*Hydrodamalis gigas*)
- B440 J.J. Hooker** A new specimen of the enigmatic mammal *Lessnessina* from the early Eocene of Abbey Wood, UK, shares important characters with stem members of the superorder Paenungulata
- B441 E. Webb, J. Codd, K. Jones** Impact of axial patterning on ribcage composition and regionalization in Xenartha
- B442 R.E. Narducci** Evaluating the contributions of phylogeny and substrate preference on intracranial morphology in extant and extinct Xenarthra
- B443 H.G. McDonald, R. Nieto** Recent discovery of a skeleton of the Pan-American sloth, *Eremotherium laurillardii*, in Honduras: new insights into its distribution and paleoecology
- B444 J.A. Case, G.W. Rougier, Z. Luo, M. Lamanna, N.R. Chimento** The evolution of enamel structure and diet in the Monotremata (Mammalia)
- B445 J.L. Scharpf, J.A. Case** Early diversification and coexistence of macropods in the late Oligocene, Etadunna Formation, South Australia
- B446 E. Chenal, H.J. Diependaal, J. Hakkens, E.A. Mulder, J.W. Reumer, I.R. Van der Beek, A. Van de Weerd** Avillers (Vosges, France): a new locality with Late Triassic Mammaliaformes
- B447 A.L. Waller, L.N. Weaver, B.M. Davis** A new multituberculate skull from the Upper Jurassic Morrison Formation of Utah: implications for the taxonomic validity of the genus *Gliriodon*
- B448 A. Khatavkar, A. Goswami, G. Prasad** First mammal (Gondwanatheria) from the Upper Cretaceous Kallamedu Formation of the Cauvery Basin, South India
- B449 G.P. Wilson Mantilla, I.R. Newbins, D.E. Fastovsky, Y. Zhang, M. Montellano Ballesteros, D. García Alcántara, M. Chen** Cranial and postcranial remains of a new species of *Cimolodon* (Mammalia, Multituberculata, Cimolodontidae) from the Upper Cretaceous (Campanian) El Gallo Formation of Baja California, México
- B450 A.S. Schulp, Y.U. Braumuller, L.W. van den Hoek Ostende, E. Kruidenier** Between sauropod toes: a microvertebrate survey of fine-grained deposits from the Upper Jurassic Morrison Formation (northern Wyoming, USA)
- B451 C.K. Siemann, K. Beard, M.F. Jones** A description of *Pararyctes pattersoni* and *Palaeoryctes* sp. nov. (Mammalia: Palaeoryctidae) from the late Paleocene Fort Union Formation of Wyoming, USA
- B452 B. Burger, L. Jolley** Skeletal convergence between the Middle Eocene *Pantolestes* and modern river otters (*Lontra*): insights from a new skeleton from the Washakie Formation

- B453 F.A. Perini, S. Lages, L.D. Carneiro, L.C. Andrade, R.C. da Silva** A new ichnospecies of *Nihilichnus* from the Paleogene of South America: trace makers and ichnological and paleobiological implications
- B454 H.O. Berks, E. Rayfield, P. Donoghue** High functional optimality in mammalian jaws reflects an evolutionary trade-off between strength and speed
- B455 H. Williams** Correlating masticatory muscle and skull morphology across mammals
- B456 M. Camaiti, Y. He, A. Goswami** Macroevolutionary patterns of 3D skull suture complexity across the mammalian radiation
- B457 A. Gardiner, R.J. Asher** Variation, ecology, and anterior rostral anatomy in small, 'insectivoran' mammals.
- B458 H. Gomes Rodrigues** Evolution of dental eruption patterns in placental mammals
- B459 B. Figueirido, A. Perez Ramos, M. García-Sarmiento, J. Moulaye, J. Pastor, J.A. Pérez-Claros, A. Martín-Serra** Vertebral column evolution in Sirenia (Mammalia, Afrotheria)
- B460 S. Leedham, K. Jones, N. Cooper, J. Charles, K.T. Bates** Locomotor specialization drives patterns of evolutionary allometry in the mammalian spine
- B461 A. Gillet, S.E. Pierce, K. Jones** 'Back' to the sea: backbone evolution in secondarily aquatic mammals
- B462 R.J. Asher** How reliable are fossilizable data in phylogeny reconstruction?

Reptile'O'Rama

- B463 D. Rowe, R. Reisz** Examination and reconstruction of locomotory patterns for *Captorhinus* sp. and *Mesenosaurus efremovi* using digital modeling methodology
- B464 M. Malone, K. Nicholas, S.S. Sumida** New information on the postcranial skeleton of *Rhodotheratus parvus*, supporting the interpretation that it is a miniaturized adult and smallest adult member of the basal eureptilian family Captorhinidae
- B465 A. Sanchez** Ontogenetic data for the early Permian basal captorhinid eureptile *Labidosaurus*: comparative anatomy and possible behavioral implications
- B466 D. Marjanović** The origin and early evolution of amniotes in phylogenetic context: step 2
- B467 A. Jannel, C. Clemente, J.A. Nyakatura, J. Fröbisch** Reconstructing 3D locomotor capabilities and hindlimb musculature in the early Permian reptile *Eudibamus cursoris*: Implication for the origin of bipedalism
- B468 R.C. Benjamin** Expanding the rhynchosaur sample in the CoArTreeP: implications for hyperodapedontine relationships and the monophyly of *Hyperodapedon*
- B469 J. Zariwala, I. Stott, M. Ruta, M. Hayden, C. Venditti, A. Meade, G. Sutton, M. Sakamoto** Evolution of the antorbital fenestra in Archosauriformes: insights from craniofacial morphometrics

Dinosauria II: Aves

- B470 L.S. Freisem, D. Meyer, B.S. Bhullar** Tracking archosaurian brain evolution through early embryonic development
- B471 D.C. D'Amore, C. Yox, A. Wilken, C. Holliday** Temporal muscle orientation correlates with tooth reduction and loss in paravian dinosaurs
- B472 WITHDRAWN**
- B473 A. Colesmith, B. Arnaout, D.J. Field** Boneless wings: the evolution and distribution of manual claws in avialans
- B474 M. Burton, J. Benito, D.J. Field** The evolution of postcranial pneumaticity in crownward stem birds
- B475 G. Kinney-Broderick, G. Navalon, D.J. Field** Using μ CT scanning to reinvestigate the appendicular skeletal morphology of *Confuciusornis sanctus*
- B476 M. Serio, H. Hu** New bohaiornithid-like bird from the Lower Cretaceous of China with well-preserved gastric pellet
- B477 R. Palmgren, K. Harrington, E. Bamforth, C. Sullivan** A hesperornithiform bird from the Campanian Dinosaur Park Formation of western Saskatchewan, Canada, and the diversity of small mid-grade hesperornithiforms in Late Cretaceous North America

- B478 C. Sullivan, J. O'Connor, J. Mandseth, R.L. Sissons, N. Campione, P.R. Bell, M. Vavrek, F. Fanti, E. Bamforth** A diminutive hesperornithiform bird from the Upper Cretaceous Wapiti Formation of northern Alberta, Canada, and the form of the hesperornithiform carpometacarpus
- B479 Z. Risley-Smyth, E. Bamforth, C. Sullivan** A partially fused juvenile hesperornithiform (Avialae, Ornithuromorpha) metatarsus from the Albian–Cenomanian (Cretaceous) of northern Alberta, Canada
- B480 H.J. Scudder, Z. Boles, K. Lacovara** Preliminary evidence of osteosclerosis as indication of diving behavior in a fragmentary K/Pg fossil ornithurine from New Jersey
- B481 J.C. Terol, M. Costa-Pérez, F.J. Serrano** Variation in humeral disparity across avian evolution
- B482 H. Bean, N.P. Edwards, S.M. Webb, D.J. Field, M.E. McNamara** A new framework for quantitative prediction of fossil feather color using melanosome geometry, metal chemistry and reflectance spectrophotometry
- B483 P.J. Morris, A. Wood-Bailey, P. Watson, J. Bright** The functional morphology and evolution of the avian cranial kinetic 'hinge' apparatus
- B484 H. Hu, R.B. Benson** Phalangeal shape variation and its ecological correlates in birds
- B485 A.J. Shepherd, R. Nudds** A new application of OpenSim to study fossil bird biomechanics
- B486 C. Mehling** First feather inclusions digitally extracted from a coprolite
- B487 T.L. Prescott, B.W. Griffin, P.L. Falkingham** Footprints beneath the surface: visualizing foot-substrate interactions using μ CT
- B488 J.T. Deckhut, J.A. Case** Modern avian polar section modulus plots predict the lifestyle of the latest Cretaceous fossil avians *Antarcticavis capelambensis* and *Vegavis iai*
- B489 K.E. Samonds, J. Hansford, L. Ranivoharimanana, N. Rasolofomanana** Head to toe: the latest in Aepyornithidae research using exceptional cranial remains
- B490 A.J. Tennyson, P. Lubbe, A. Adams, L. Shepherd, T. Cole, M. Knapp, B. Llamas, J. Wood, K. Mitchell, N. Rawlence** Morphometrics and ancient DNA reveal a new species of extinct insular shelduck (Anatidae, *Tadorna*) from Rekohu Chatham Islands
- B491 K.J. Doron, E.V. Griffith, J.D. Weckstein** Evidence of repeated evolution of wing spurs in Anseriformes based on X-rays of study skins
- B492 K.M. Gregory, R. Felice, R. Marek, A. Knapp** The role of trade-offs in shaping cranial morphological variation in domestic chickens
- B493 A. Chen, D.J. Field** On the origin of nightjars (Caprimulgidae): perspectives from the fossil record
- B494 K. Matts, E. Fordyce** A brief history of the penguins of Zealandia, focus on late Oligocene *Platydyptes* new phylogenetic position and fourth species
- B495 C. Du Toit, A. Bond, S. Cunningham, S. Portugal, R.M. Salas-Gismondi, D.J. Field** Tactile bill-tip organs in extant and Paleogene seabirds suggest conservation of a deep avian symplesiomorphy
- B496 C.R. Cope, I.J. Rivera-Molina, A.W. Peng** An unusually complete specimen of *Bubo virginianus* (Aves, Strigiformes, Strigidae) from the Pleistocene of Kansas and the use of skeletal proportions in the identification of fossil owls
- B497 U. Göhlich, G. Putzgruber, R. Roetzel** A new avifauna from the Lower Miocene of Austria
- B498 M.F. Chavez-Hoffmeister, A. Solorzano, A. Encinas, G. Carrasco** Fossil birds from the Cura-Mallín Formation: new clues about continental birds from the Neogene in southern Chile
- B499 G.B. Davies, B.T. Fuller, J. Southon, R. Dunn, E. Lindsey, K.E. Campbell, M.R. Waters** Chronology of avian extinction, survival, and turnover in the terminal Pleistocene at Rancho La Brea, California

Symposium: Multidisciplinary Approaches to Skull Function & Evolution

- B500 G.S. Ferreira** Theoretical adaptive landscapes suggest that bite efficiency and opening speed—but not strength—shape the mandibles of turtles

- B501 J.C. Silva, A. Ballell, T.I. Pollock, E. Rayfield** Finite element analysis and puncture testing reveal diverse dental mechanics among early dinosaurs
- B502 S. Lautenschlager, V. Díez Díaz, G.S. Ferreira, R.A. Bilbee, M. Tumelty, L.B. Porro, A. Gidna** Ontogenetic functional and dietary niche shifts in the basal iguanodontian *Dysalotosaurus lettowvorbecki*
- B503 C.D. Hill, P.J. Morris, P. Watson, J. Bright** Evolutionary changes in the suborbital arch of parrots
- B504 S. Pollard, P.J. Morris, S. Lautenschlager, P. Watson, J. Bright** Elucidation of functional morphology in the avian rhamphotheca using finite element analysis
- B505 F.J. Weston, S. Lautenschlager** Modelling the functional effects of changing canine tooth length in sabertoothed predators
- B506 A. Coste, C. Loch** Morphometrics and functional implications of tusk-like teeth in fossil waipatiids: peculiar cranial and dental evolution in early odontocetes

Dinosauria III: Macroevolution & Sauropodomorpha

- B507 G.G. Barbosa, F. Montefeltro, J. Silva Júnior, Q. Zhang** Comparative cranial biomechanics in Sauropodomorpha: morphological and functional evolution of feeding strategies
- B508 L.S. Jackson, A.N. Rountrey, J.A. Wilson Mantilla** Tooth imbrication evolution and function in sauropodomorph dinosaurs
- B509 R. Lefebvre, C. Aubry, H. Mallison, A. Houssaye** Evolution of the sauropodomorph astragalus: implication for key phylogenetic characters and critical appraisal of evolutionary rates associated to the evolution of sauropod's bauplan and gigantism
- B510 S. Beeston, D. Schwarz, P. Upchurch, P.M. Barrett, P. Asbach, P.D. Mannion** Postcranial skeletal pneumaticity in Late Triassic sauropodomorph dinosaurs
- B511 J. Schaeffer, R. Lefebvre, R.R. Schoch** Analyses of the early sauropodomorph dinosaur *Plateosaurus trossingensis* using 3D geometric morphometrics
- B512 X. Chen, Y. Wang, Q. Zhang, H. You** A new non-sauropodan sauropodomorph from the Lower Jurassic Zhangjiaao Member of Lufeng Formation, Yunnan, Southwestern China
- B513 R.J. Zhao, X. Chen, H. You** Skeletal reconstruction and locomotor mode of *Xingxiulong yueorum*, a sauropodomorph dinosaur from Lower Jurassic Lufeng Formation, China
- B514 J. Órfão, A. de Celis, F. Ortega, P. Mocho** The Morrison Fm. (Late Jurassic, USA) Sauropoda diversity: a blink into the (global) past
- B515 J.N. Cattedra, C. Woodruff, J.R. Horner, J. Scannella** A multi-taxic assemblage of immature sauropods from the Upper Jurassic Morrison Formation of southwestern Montana, USA
- B516 T. van der Linden, G.T. Bivens, R. Hunter, T. Stecko, R. Wilhite, C. Woodruff, B. Curtice** A fracture in the 'whip' of a *Barosaurus* tail provides possible evidence of combat use in flagellicaudatan sauropods
- B517 S. Liu, S. Beeston, X. Xu, P. Upchurch, P.D. Mannion** The external and internal anatomy of the cervical vertebrae of the sauropod dinosaur *Lingwulong shenqi* and its implications for pneumaticity in Diplodocoidea
- B518 P. Mocho, F. Escaso, J.M. Gasulla, B. Maggia, E. Malafaia, F. Marcos-Fernández, I. Narváez, J. Órfão, F. Ortega** Walking with giant dinosaurs: new brachiosaurid fossil sites from the Upper Jurassic of Pombal (Portugal)
- B519 A. Gigliotti, F. Schäfer, J.A. Nyakatura, V. Díez Díaz** Testing the effect of different rotation centers in procoelous caudal vertebrae on the ranges of motion (RoM) of two sauropod tails from the Late Jurassic of Tendaguru (Tanzania)
- B520 D. Schwarz, V. Díez Díaz, A. Campbell, W. Jilala Viscent, P.M. Bushozi** Sauropod diversity in the Middle and Upper Dinosaur Member of the Late Jurassic Tendaguru Formation in Tanzania
- B521 K. Eiamla-or, S. Suteethorn, P. Chantasit, V. Suteethorn, K. Suraprasit** Structural and pneumatic characteristics of the cervical vertebrae of sauropods from the Lower Cretaceous Sao Khua Formation, Thailand
- B522 C. Christensen, S. LeBaron, B. Britt, R. Scheetz** A cluster of gastroliths and minute plant fossils associated with *Moabosaurus* provide the first evidence of the diet of sauropods

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- B526 K. Edgar, R. Butler, E. Nicholls, D. Murdock, L. Meade, P.L. Falkingham, J. Lallensack, T.M. Beard** Thirty years of discovery at the UK's largest dinosaur track site: Ardley and Dewar's Farm Quarries in north Oxfordshire
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