

CURRICULUM VITAE

Yilun Yu

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EUDCATION:

2024.9-present | RGGS postdoctoral fellowship | American Museum of Natural History | Paleontology & Macroevolution

[Supervisor]: Prof Roger Benson.

2020.09-2024.07 | Chinese Academy of Science | Institute of Vertebrate Paleontology and Paleoanthropology (IVPP) | Paleontology | PhD

[Research interests]: Comparative morphology; Theropod dinosaur; Macroevolution; Phylogenetic comparative methods.

[Supervisors]: Prof. Xing Xu & Prof. Chi Zhang.

2015.09-2020.07 | Peking University | Yuanpei College | Paleontology (Biology Concentration) | BSc

PEER REVIEWED PUBLICATIONS:

[1] **Yu Y[#]**, Yi H., Wang S., et al., (2023). A Jurassic Tibetan theropod tooth reveals dental convergency and its implication for identifying fragmentary fossils. **The Innovation Geoscience** 1(3), 100040. (# Correspondence)

[2] Han F*, **Yu Y***, Zhang S*, Zeng R, Wang X, Cai H, Wu T, Wen Y, Cai S, Li C, Wu R, Zhao Q, Xu X. Exceptional early Jurassic fossils with leathery eggs shed light on dinosaur reproductive biology, **National Science Review**, 2024, 11(6): nwad258. (In press, * means contributed equally; Cover story)

[3] **Yu Y**, Zhang C, Xu X. Complex macroevolution of pterosaurs[J]. **Current Biology**, 2023, 33(4): 770-779. e4.

[4] **Yu Y**, Zhang C, Xu X. Deep time diversity and the early radiations of birds[J]. **PNAS**, 2021, 118(10): e2019865118.

[5] **Yu Y**, Wang K, Chen S, et al. A new caenagnathid dinosaur from the Upper Cretaceous Wangshi Group of Shandong, China, with comments on size variation among oviraptorosaurs[J]. **Scientific Reports**, 2018, 8(1): 5030.

[6] **Yu Y L**, Sullivan C, Xu X. Three-dimensional modeling of the manual digits of the theropod dinosaur Guanlong, with a preliminary functional analysis[J]. **Acta Palaeontol Sin**, 2015, 54(2): 165-173.

[7] Xu C., Chen J., Muijres F. T., **Yu Y.**, Jarzembowski E. A., Zhang H., & Wang B. (2024). Enhanced flight performance and adaptive evolution of Mesozoic giant cicadas. **Science Advances**, 10(43), eadr2201.

[8] Wang D, Qiang Y, Guo J, Vannier J, Song Z, Peng J, Zhang B, Sun J, **Yu Y**, Zhang Y, Zhang T, Yang X, Han J. Early evolution of the ecdysozoan body plan 2024. **Elife**. 13:RP94709.

[9] Xue Q, **Yu Y**, Pan Z, Zhu Y, Zhu M. Decline in phylogenetic diversity of Arthrodira (stem-group Gnathostomata) correlates with major Devonian bioevents. **Vertebrata Palasiatica** 2024, 62(1): 1-12.

[10] Cui, X., Friedman, M., **Yu, Y.** et al. Bony-fish-like scales in a Silurian maxillate placoderm[J]. **Nature Communications** 14, 7622 (2023).

[11] Zhu Y, Li Q, Lu J, Chen Y, Wang J, Gai Z, Zhao W, Wei G, **Yu Y**, Ahlberg P & Zhu M. The oldest complete jawed vertebrates from the early Silurian of China[J]. **Nature**, 2022, 609(7929): 954-958.

[12] Cui X, Friedman M, Qiao T, **Yu Y** & Zhu M. The rapid evolution of lungfish durophagy[J]. **Nature Communications**, 2022, 13(1): 2390.

[13] Zhao X, **Yu Y**, Clapham M E, Yan E, Chen J, Jarzembowski E, Zhao X & Wang B. Early evolution of beetles regulated by the end-Permian deforestation[J]. **Elife**, 2021, 10: e72692.

[14] Bi S, Amiot R, de Fabrègues C P, Pittman M, Lamanna M, **Yu Y**, Yu C, Yang T, Zhang S, Zhao Q & Xu X. An oviraptorid preserved atop an embryo-bearing egg clutch sheds light on the reproductive biology of non-avian theropod dinosaurs[J]. **Science Bulletin**, 2021, 66(9): 947-954.

[15] Mo J, Ma F, **Yu Y** & Xu X. A New Titanosauriform Sauropod with An Unusual Tail from the Lower Cretaceous of Northeastern China[J]. **Cretaceous Research**, 2022: 105449.

[16] Dai H, Benson R, Hu X, Ma Q, Tan C, Li N, Xiao M, Hu H, Zhou Y, Wei Z, Zhang F, Jiang S, Li D, Peng G, **Yu Y**, & Xu X. A new possible megalosauroid theropod from the Middle Jurassic Xintiangou Formation of Chongqing, People's Republic of China and its implication for early tetanuran evolution[J]. **Scientific Reports**, 2020, 10(1): 139.

[17] Mo J, Ma F, **Yu Y**, et al. A New Titanosaurian Sauropod from the Upper Cretaceous of Jiangxi Province, Southern China. **Historical Biology** 2023.

CONFERENCE:

2023 | The 7th Conference on Earth System Science | **Yilun Yu**, Chi Zhang & Xing Xu. Complex macroevolution of pterosaurs. | Oral presentation.

2020 | International Geology Congress | **Yilun Yu**, Chi Zhang & Xing Xu. Estimating evolutionary rates of three avemetatarsalian groups using database-based and Bayesian phylogenetic approaches. | Poster.

2018 | SVP | **Yilun Yu** & Xing Xu. Curvature of manual bones of microraptorine theropods: possible implication for arboreal behavior. | Poster.

2017 | SVP | **Yilun Yu**, Xing Xu, Kebai Wang, Shuqin Cheng & Peiye Wang. A new caenagnathid (theropoda: oviraptorosauria) from the upper cretaceous wangshi group of Shandong, China. | Poster.

2014 | SVP | Corwin Sullivan, **Yilun Yu** & Xing Xu. Manual flexibility and grasping ability in the basal tyrannosauroid dinosaur *Guanlong Wucai*. | Poster.

FIELDWORKS:

2012 | Inner Mongolia, the Erlan Basin | IVPP | About 7 days.

2015 | Inner Mongolia, the Erlan Basin | IVPP & HKU | About 15 days.

2018 | Yunnan Province, Eshan County & Lufeng County | IVPP, Yunnan University & George Washington University | About 21 days.

2023 | Jiangxi Province, Ganzhou City | IVPP | 5 days.

GRANTS:

2024.09-2026.9 | Yilun Yu | Quantifying macroevolutionary patterns of reproductive traits across reptilian phylogeny with expanded dataset and new exceptional fossil evidence from China | RGGS and Frick Postdoctoral Research Fellowship, AMNH

2022.01-2025.12 | Chi Zhang & Yilun Yu | Bayesian Total-evidence Dating Integrating Morphological and Genomic Data -- Improvements and Applications | General Program of National Natural Science Foundation of China.

PEER REVIEW:

Journal of Systematics and Evolution.

Paleoworld.

Cretaceous Research

SKILLS:

Software and coding:

BEAST2, MrBayes, TNT, IQ-Tree, Mesquite, R, BayesTrait, RevBayes, PyRate, PAST, FigTree, Tracer.

Morphology description:

Coelurosaurian theropods.

TEACHING EXPERIENCE:

2021 | Computational Phylogenetics | (TA) | IVPP.

PRIZES AND AWARDS:

2024 | Premier Graduate Award | Government of Beijing.

2024 | Premier Graduate Award | Chinese Academy of Science.

2023 | Award for Science Communication | IVPP.

2023 | Major Scientific Achievement | IVPP.

2023 | Outstanding Scientific Achievement | IVPP.

2023 | National Scholarship of China | Government of China.

2023 | President's Scholarship | Chinese Academy of Sciences.

2022 | Award for Science Communication | IVPP.

2021 | Major Scientific Achievement | IVPP.

2021 | National Scholarship of China | Government of China.

2021 | President's Scholarship | Chinese Academy of Sciences.

2021 | Student Merit Award | University of Chinese Academy of Science.

2020 | Premier Graduate Award | Government of Beijing.

2020 | Premier Graduate Award | Peking University.

2020 | Premier Graduate Award | Yuanpei College PKU.

2019 | University Grant Scholarship | University of Chinese Academy of Science.

2019 | Young Scholars | Yuanpei College PKU.

2018 | PKU's Person of the Year | Peking University.

2018 | Award for Academic Excellents | Peking University.

2017 | May 4th Scholarship | Peking University.

2017 | Award for Academic Excellents | Peking University.

RESEARCHGATE:

H-index:8

<https://www.researchgate.net/profile/Yilun-Yu>

SCIENCE COMMUNICATION:

2022-2023 | Vernal Equinox Project Encyclopedia of Science | University of Chinese Academy of Science.

2023 | popular science video: Vertebrate Evolution Animation | IVPP | scientific instructions.