



SOCIETY OF AVIAN PALEONTOLOGY AND EVOLUTION

- Newsletter -

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SOCIETY OF AVIAN PALEONTOLOGY AND EVOLUTION

Executive Council (2023-2026)

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Dear Friends, Colleagues, and SAPE Members,

Finally, after 3 years of postponement due to the COVID pandemic, the 10th SAPE meeting went ahead between 8th-12th May 2023 in the beautiful city of Malaga, Spain. It was perfectly planned and organized by Francisco "Kiko" Serrano and colleagues from the University of Malaga, whom I wish to thank warmly for their efforts in making this congress such a memorable event. Almost 70 attendees from 16 countries enjoyed this in-person meeting, gaining new scientific input through about 40 oral and 15 poster presentations. We, the participants, also benefited from the wonderfully planned social events like the ice breaker party, the closing dinner, a tour through the historic town of Malaga, and the eventful mid- and post-meeting excursions. Thank you all for participating, for your interesting presentations and especially all the members of the organizing committee for your efforts and great work.

Some important changes and innovations for our SAPE Society, previously submitted, were approved by majority vote during the 2023 general assembly in Malaga. These were: reducing the SAPE's meeting cycle

from quadrennial to triennial and raising the membership dues from formerly \$20 USD (for a 4-year term) to \$50 USD (for a 3-year term) for professionals or \$30 USD for students; a reduced membership fee of \$20 USD is provided for members from Middle HDI and developing Countries upon request. For more details see www.sapesociety.org.

Shortening the meeting cycle required adopting new wording in a few articles of SAPE's constitution and bylaws. Also, in a few places the wording was modified in order to adopt more inclusive language. These changes have been submitted to and approved by all members of the Executive Council in October 2023. The recently adopted constitution and bylaws can be found on www.sapesociety.org.

Finally, I wish to thank my predecessor LUIS CHIAPPE (Natural History Museum of Los Angeles County, USA), who steered the affairs of the SAPE excellently for more years than average (due to the COVID pandemic) as president (2016-2023) and before as vice-president (2012-2016). I'm also grateful to our colleague Estelle

Bourdon (France) for caring for our homepage. We are still working on updating and complementing our SAPE homepage so please check it out for updates.

With anticipation, I thank our colleagues Vanesa De Pietri and Paul Scofield for their proposal (which was approved by vote during the general assembly in Malaga) to organize and host the next SAPE meeting in

2026 in Christchurch, New Zealand. I'm looking forward to meeting many of you face-to-face there.

Ursula Göhlich
President

TRIBUTE TO EWAN FORDYCE (1953-2023)

Ewan Fordyce passed away peacefully on Friday November 10. Ewan was a respected colleague, friend, and mentor to many of us. A memorial service for Ewan will be held at Hope & Sons, 523 Andersons Bay Road, at 2:00pm, on Monday, November 20. The funeral will be livestreamed, and a link will be available here <https://www.tributes.co.nz/ViewMyTribute.aspx?id=19930>, where you can also leave a message in his Tribute Book.

Last year, the Geoscience Society of New Zealand published a volume honouring Ewan (R. Ewan Fordyce: Tributes from a Global Community), which can be accessed through this link https://gsnz.org.nz/assets/Uploads/Shop/Products/MP160_REwanFordyce_tribute_220601.pdf

(Vanesa De Pietri / Marcus Richards)

OBITUARIES

Peter Ballmann (1941-2023)

The German paleornithologist and geologist Peter Ballmann (*13th of June 1941 in Reichenberg) passed away on 1st of August 2023 in Cologne. He was aged 82. Peter Ballmann grew up in Germany and Colombia. He studied Paleontology/Geology at the Universities of Munich, Berlin, Tübingen (all Germany) and Leiden (The Netherlands). In 1966 he finished his PhD at the University of Munich about the early Miocene bird fauna from the locality Wintershof-West in Bavaria (Southern Germany). Most of his scientific articles dealt with Miocene or Pleistocene bird faunas from several famous European sites (e.g. La Grive (France), Gargano (Italy)) from where he described more than 25 new bird taxa.

Although he started working in the early 1970ies as a prospecting geologist/pedologist for a petroleum company (if I remember that well), he continued publishing on fossil birds throughout the 1970ies until the early 1980ies.

In the frame of his geological job, he worked and lived in several countries and regions all over the world: Ivory Coast (1971), Costa Rica (1973-1974), Saudi Arabia (1981-1984) and Eswatini (former Swaziland) (1985). After his retirement, he made a few more publications in the 2000s about Miocene birds from the "Nördlinger Ries" (Germany), in the last of which I had the pleasure to collaborate intensively with him.

During our collaboration, I have experienced that Peter Ballmann was highly educated and spoke a minimum of six languages fluently (among them English, Spanish, Dutch, French, Russian and even Latin); if I remember well he spoke some more languages, but he didn't consider them to be fluent.

He was a very good anatomist (osteology and myology) and influenced through some of his early

publications the osteological terminology and standardized measuring of bird bones, that we still all use. Peter Ballmann will be remembered due to his impact in paleornithology.

Angelika Hesse (1955-2023)

Only aged 67, the German Geologist and Paleontologist Angelika Hesse (*6th November 1955, †16th June 2023) passed away suddenly and unexpectedly this summer.

After her studies of Geology and Paleontology, Angelika made a PhD thesis on fossil birds from the famous Eocene locality Messel (Germany) at the Senckenberg Research Institute in Frankfurt, Germany, supervised by the then ornithological curator Dieter Stefan Peters. She intensively studied the Messel rails and created the family Messelornithidae Hesse, 1988. She presented her research on the Messel rails at the 1988 SAPE meeting in Los Angeles and on the avifauna of the Steinheim Basin (Germany) at the 1992 SAPE meeting in Frankfurt.

After some further publications in paleornithology, in 1991 she obtained a position as a curator for the geoscience department in the Museum für Naturkunde und Vorgeschichte in Dessau, Germany. For 30 years she invested all her forces into special exhibitions, the geoscience collection, the organization of field trips, series of lectures, and swap meets of fossils and minerals for people interested in paleontology and geology. Even after her retirement in 2021, she was intensively committed to geoscience and its transfer of knowledge. Unfortunately, her early and sudden death stopped these activities.

(Ursula Göhlich)

REMEMBERING MICHAEL DANIELS (1931-2021)

In September 2021, Michael Daniels passed away shortly after celebrating his 90th birthday. To longtime members of SAPE, he will be well-known for his reports on amazing bird fossils found in the early Eocene

London Clay of Walton-on-the-Naze in the southeastern part of England.

Michael was one of the founding members of the Tertiary Research Group in 1969 and moved to Holland-

on-Sea after his retirement as a cabinet maker and locksmith in 1985. During a period of more than three decades, he collected numerous bird fossils from a horizon, which is no longer well exposed. As has been noted in a recent obituary by Andrew Kitchener, Michael estimated "that he drove 27,000 miles and walked 1,590 miles on 640 field visits to Walton-on-the-Naze to collect 15 tonnes of London Clay. He then took another 600 hours or 150 days to painstakingly prepare around 700 birds fossils". The material he gathered ranges from individual bones, or fragments thereof, to multiple largely complete skeletons that preserve most bones in fine detail.

As a largely self-taught fossil bird enthusiast, he developed a unique identification and cataloguing system of his specimens based on multiple measurements of the often fragmentary bones. This idiosyncratic method worked well to provide an overview of the different types of birds in his collection and enabled the location of fossils in the numerous boxes and drawers in his Victorian-style study room. Michael was a keen observer with exceptional drawing skills and many of illustrations accompanied his notes in early SAPE newsletters.

Michael intensely corresponded with various SAPE members, including Cécile Mourer-Chauviré, Peter Houde, and Storrs Olson, who repeatedly visited his home and the collection. I first contacted him in 1995 in the course of my PhD thesis on fossil birds from Messel. Since then, we met and corresponded over many years and co-authored a few studies that included some of his fossil material. Because the London Clay avifauna

shows very close parallels to that of Messel, we had very fruitful discussions over the years, which greatly helped both of us to understand the fossils we were interested in. Michael's three-dimensionally preserved but often fragmentary bones showed close details not visible in the Messel birds, whereas the skeletons from the latter locality gave a more vivid impression of the overall appearance of these Eocene birds.

Michael had a deep "British" sense of humor, but was also sensitive to what he perceived as ignorance by the scientific establishment, feeling neglected by researchers who did not study fossils in private hands. For some time, I also fell victim to this inherent leeriness, but our relationship improved again in the past years and my last visit to his home dates back to 2015.

In his long life, Michael had to cope with some blows of fate, most notably the far too early death of his daughter Caroline in 2004, who was the only child he and his wife Pamela had. Pamela, who provided hospitality for many visitors of the Daniels collection, died in 2013, aged 77. It may be a coincidence, but Michael's activities at Walton-on-the-Naze largely came to a halt after Caroline's death and the large collection was put in some sort of slumber state.

Michael had a long friendship with Andrew Kitchener, the curator of the vertebrate zoology collections of the National Museums Scotland. He bequeathed his collection to this institution, and Andrew and I are currently in the process of curating and describing the fossils.

(Gerald Mayr)

PROCEEDINGS OF THE 10TH SAPE MEETING

The Proceedings of the 10th Meeting of the Society of Avian Paleontology and Evolution will be published in the journal *Geobios*. The deadline for submissions is now November 24.

Contributing authors can submit their manuscripts through the following link to the submission portal:

<https://www.editorialmanager.com/geobio/default2.aspx>
Please select "10th SAPE Meeting" at the very start of the submission process ("Select Article Type") and carefully read the "Instructions for authors" to format the manuscript to *Geobios* standards. For further questions, please contact Francisco "Kiko" Serrano, fjsa@uma.es.

SAPE MEETING 2026

We are delighted to be hosting the next meeting in 2026 in Christchurch, New Zealand. Christchurch has come a long way from the 2010/2011 Earthquakes and is becoming a vibrant and beautiful city with a lot to offer.

It is still very early days, so I'm afraid we do not have any updates on dates, venue, or fieldtrips, but you will hear as soon as we do. Currently, I am putting together

the Organizing Committee, and I thank all of you who have already agreed to be on it. If you would like to join and help out, please let me know. I would also like to remind everyone that only SAPE members will be able to register for this meeting.

(Vanessa De Pietri, vanessa.depietri@canterbury.ac.nz)

CALL FOR MEMBERSHIP RENEWAL

Anyone not listed on the website (http://www.sapesociety.org/?page_id=109) as a current SAPE member is encouraged to follow the instructions on the website and renew your membership immediately

(<http://www.sapesociety.org>). Please also encourage your colleagues and students to join the society.

The membership rate is \$30.00 USD for students and \$50 USD for professionals for a 3-year period between

SAPE meetings. Dues paid now will cover the period from now until the SAPE meeting in Christchurch in 2026 (please note that only SAPE members will be able to register for the Christchurch meeting). We do provide discounted rates (\$20 USD) for members residing in Middle HDI and developing countries. Please see our website for details.

The entire executive council would like to thank you in advance for renewing your membership and supporting SAPE and our mission. If you would like to make an additional gift to the society please reach out to Treasurer, Adam Smith (paleobirdsmith@gmail.com) and/or SAPE President Ursula Göhlich (ursula.goehlich@nhm-wien.ac.at).

FINANCIAL STATEMENT

Overall, the society is in good financial standing. We raised 1335 Euro (approximately \$1410 USD) during the auction at our recent meeting in Malaga, Spain. Additional donations by members in attendance, sales of SAPE t-shirts and stickers, as well as membership dues paid in Malaga generated an additional \$917.42. Special thanks to outgoing President Luis Chiappe, who made a \$1000 USD donation while in Malaga, to help ensure the financial stability of the society moving forward.

Expenditures over the period from October 2022 – October 2023 were limited to website hosting service fees (~\$160 USD). The current bank balance of The SAPE stands at \$8,714.66 USD, and will allow us to continue offering Cecile Mourer Chauviré Travel Grants to student members of the society for the upcoming meeting in New Zealand in 2026.

(N. Adam Smith, SAPE Treasurer)

NEWS FROM MEMBERS AND RECENT PUBLICATIONS

ARGENTINA

CAROLINA ACOSTA HOSPITALECHE, from the Museo de La Plata and CONICET, continues working on Antarctic and South American fossil birds, including new specimens from the Upper Cretaceous of Seymour and Vega islands (Antarctica), the Miocene of Argentina, Chile, and Colombia, and the Quaternary of Uruguay.

Together with the Ph.D. student FACUNDO IRAZOQUI, Carolina is studying a new skeleton from the Maastrichtian of Seymour Island that preserves the cranium and some post-cranial elements. The other avian remains from the Cretaceous of Antarctica are under preparation. Also working on material from Antarctica, MARÍA ALEJANDRA SOSA and LUIS GARAT continue their Ph.D. on morpho-functional aspects, and osteo-histology of penguins, respectively. Besides, ALEJANDRA PIRO is finishing her Ph.D. on anatomy and taxonomy of Procellariiformes and the results will be available very soon.

Apart from that, Carolina continues teaching as a Professor at the Universidad Nacional de La Plata in: Principles of Paleontology (Second year of the degree in paleontology and fifth year for teachers at secondary school) and Vertebrate Paleontology (fifth year of degree in paleontology).

Research at the LACEV (Laboratorio de Anatomía Comparada y Evolución de los Vertebrados, at the Museo Argentino de Ciencias Naturales “Bernardino Rivadavia”) currently focuses on diverse topics on birds and early bird evolution. Published works include basal ornithomirans (bird-line archosaurs), Cretaceous birds and new avifaunas from the Miocene of San Juan and Santa Cruz. The PhD student G. ÁLVAREZ HERRERA is currently working on several topics on the anatomy of *Vegavis iaai*, and its palaeobiogeographical implications. Work in progress also includes the first hesperornithiform evidence of the Southern Hemisphere. S. ROZADILLA is doing his PhD thesis on palaeognath classification and evolution.

Constituted by CONICET (National Scientific and Technical Research Council, Argentina) researchers CLAUDIA TAMBUSI, FEDERICO “DINO” DEGRANGE and and MARÍA MANUELA DEMMEL FERREIRA (Research Center on Earth Sciences -CICTERRA- National University of Cordoba) in Córdoba, and RICARDO DE MENDOZA, CLAUDIO G. BARBEITO and JULIETA CARRIL (Laboratory of Histology and Descriptive, Experimental and Comparative Embryology -LHYEDEC- Faculty of Veterinary Sciences, National University of La Plata) in Buenos Aires, the Avian Biomorphodynamics Research Group (ABReG) works on several topics on paleobiology and evolution of South American and Antarctic birds using different approaches and methodological tools in order to understand the development, morphology and evolution of extant and extinct birds. The main research carried out nowadays focuses on the study of the biomechanical and performance disparity in different bird skulls (i.e., parrots, terror birds and nightjars), the analysis of swimming and diving capabilities in coots, the anatomical network analysis of the musculoskeletal system of the avian foot and its connectivity patterns through development, and the analysis of brain morphology in stem-Anseriformes and in the teratorn *Argentavis*, as well as of brain disparity and macroevolution across Passeriformes. Additionally, a fossil cathartid related to the Andean Condor, and a new species of eagle, both from different localities of the northwestern Argentina are being described. Papers and activities of the Avian Biomorphodynamics Research Group can be followed in Instagram and X as @avianbiomorpha

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- V Reunión Sociedad Argentina de Biología Evolutiva. Evolución de la quinesis craneal en Furnariidae (Aves: Passeriformes). STEFANINI, M.I., MILLA CARMONA, P.S., GÓMEZ-BAHAMON, V., MONGIARDINO KOCH, N., SOTO, I.M., GÓMEZ, R.O., ZYSKOWSKI, K., & TAMBUSI, C.P. – Abstracts: 171-172.
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- Reunión de Comunicaciones de la Asociación Paleontológica Argentina (RCAPA 2022): DEGRANGE, F.J., BARDÓN, A.L. & TAMBUSI, C.P. Una especie extinta de Anatidae (Aves, Anseriformes) del Plioceno de Córdoba (Argentina). – Abstracts RCAPA: 110.

AUSTRALIA

The 2022-23 year has again been a busy one for Avian Palaeontology at Flinders University, South Australia. Four of the team attended the SAPE conference in Malaga, which was a clear highlight of the year. It was great to see old friends and colleagues and see all the fantastic new work being done around the world.

TREVOR WORTHY is delighted to report that PHOEBE MCINERNEY has just submitted her PhD on *Genyornis*. KARL LENSER, see publication list below, has just completed Honours on charadriiforms in Pleistocene deposits at Naracoorte and is looking forward to expanding this work to the complete avifauna. Ellen Mather has just published the fourth paper from her PhD thus completing the description of the eagles and vultures from Pleistocene Australia. The extant *Aquila audax* coexisted with two *Dynataetus* species, both larger and better adapted to large prey than *Aquila audax*, and the vulture *Cryptogyps lacertosus*, during the Pleistocene. A highlight for TWH was the publishing of a new book with Mike Archer, Sue Hand and John Long, illustrated by Peter Schouton, called Prehistoric Australasia. It has over 100 paintings accompanying text on 100+ snapshots of palaeofaunas through time. Publications dealing with birds are listed below.

JACOB BLOKLAND'S main focus has been assessing the phylogenetic relationships of Oligocene-Miocene fossil rails (Rallidae) in the context of their modern relatives. This involves a comprehensive set of morphological characters, with special attention to comparing homologous structures. Together with Trevor Worthy and Phoebe McInerney, he has been involved in the publication of a chapter reviewing the Late Pleistocene and Holocene vertebrates of Oceania, which is dominated by avifauna (many of which were flightless). He has participated in the description of skull of

Genyornis newtoni, led by Phoebe McInerney, which is submitted for publication, and has contributed to a manuscript that is in review, led by George Sangster, that addresses nomenclatural issues within Rallidae. He is also supervising Amelia Cox, in an undergraduate 3rd-year project investigating the muscles of the wing of *Genyornis newtoni*, and involved in occasional teaching roles in Flinders Palaeontology course topics, including Scientific Illustration, and mentoring a 2nd-year group project.

PHOEBE MCINERNEY has recently completed and submitted her PhD thesis on *Genyornis newtoni*, a giant flightless bird from the Australian Pleistocene. Phoebe has submitted the second chapter of her thesis for publication to the journal *Geobios* as a contribution to the SAPE volume. This paper, written with Trevor Worthy and Jacob Blokland, comprises a comprehensive description of the skull of *Genyornis newtoni*, analysis of character polarities across the Galloanserae radiation, and a preliminary phylogenetic analysis on the group. Phoebe is now working towards preparing her last chapter on the inner ear morphology of Dromornithidae for publication, assisting with research led by Jacob Blokland on Rallidae, has contributed to a chapter on the vertebrate faunas of Oceania, and supervised several undergraduate student projects. She is additionally working with the Australian Broadcasting Corporation on a documentary on Australian megafauna extinctions.

ARCHER, M., HAND, S.J., LONG, J., WORTHY, T.H., & SCHOUTON, P. (2023): Prehistoric Australasia: Visions of Evolution and Extinction. – CSIRO Publishing, Melbourne.

MATHER E.K., LEE, M.S.Y., FUSCO, D.A., & WORTHY, Y.H. (2023): Pleistocene raptors from cave deposits of

South Australia, with a description of a new species of *Dynatoaetus* (Accipitridae: Aves): morphology, systematics and palaeoecological implications. – *Alcheringa: An Australasian Journal of Palaeontology*.
<https://doi.org/10.1080/03115518.2023.2268780>

WORTHY, T.H., MCINERNEY, P.L., & BLOKLAND, J.C. (2023): The Late Pleistocene and Holocene of Oceania. – Chapter in *Encyclopedia of Quaternary Science*.
<https://doi.org/10.1016/B978-0-323-99931-1.00079-9>
<https://www.sciencedirect.com/science/article/abs/pii/B9780323999311000799>

LENSER, K.M. & WORTHY, T.H. (2023): Morphometric analysis confirms the presence of the Plains-wanderer (Aves: *Pedionomus torquatus*) in fossil deposits at Naracoorte Caves, South Australia. –

Emu - Austral Ornithology, DOI: 10.1080/01584197.2023.2240346

WORTHY, T.H., DE PIETRI, V.L., SCOFIELD, R.P., & HAND, S.J. (2023): A new Eocene species of presbyornithid (Aves, Anseriformes) from Murgon, Australia. – *Alcheringa: An Australasian Journal of Palaeontology*.
<https://doi.org/10.1080/03115518.2023.2184491>.

MATHER E.K., LEE, M.S.Y., CAMENS, A.B., & WORTHY, T.H. (2023): A giant raptor (Accipitridae) from the Pleistocene of southern Australia. – *Journal of Ornithology*, 164: 499-526.
<https://doi.org/10.1007/s10336-023-02055-x>
 Published online 15 March 2023

AUSTRIA

URSULA GÖHLICH from the Natural History Museum in Vienna (NHMW) enjoyed very much participating in the SAPE meeting and fieldtrips in Malaga and finally meeting so many SAPE- colleagues in person. Ursula is currently investigating an early Miocene marine avifauna from an Austrian site of the former Central Paratethys sea; she is also collaborating in a small avian project with GERALD MAYR and is still supervising a Bachelor student on a late Pleistocene *Lagopus* material from an Austrian Cave. A time-consuming curatorial task was the data acquisition and reprocessing of the very substantial historical collection of Moas at the NHMW including a series of historical mounted skeletons. Kindly, T. Worthy assisted with a lot of anatomical information concerning these historical skeletons, several of which were surface scanned in the frame of this project. However, Ursula's research output for 2022/2023 is dominated by non-palaeornithological topics due to her responsibility for all fossil vertebrates at the NHMW.

CHIAPPE, L.M., SERRANO, F.J., ABRAMOWICZ, S. & GÖHLICH, U.B. (accepted): Flight Performance of the Early Cretaceous Bird *Confuciusornis sanctus*: Evidence from an Exceptionally Preserved Fossil. –

Spanish Journal of Palaeontology, 38;
<https://doi.org/10.7203/sjp.27543>

GÖHLICH, U.B. & RIEDL, M.-D. (2023): Wie die Moas ihren Weg nach Wien fanden. – *Naturhistorisches – Magazin des Naturhistorischen Museums Wien*, Herbst 2023: 18-19.

KOENIGSWALD VON, W., WIDGA, CH., & GÖHLICH, U.B. (2023): New mammutids (Proboscidea) from the Clarendonian and Hemphillian of Oregon – a survey of Mio-Pliocene mammutids from North America. – *Bulletin of the Museum of Natural History University of Oregon*, 30: 1-63.
https://journals.oregondigital.org/nat_history/article/view/6004

HARZHAUSER, M., GÖHLICH, U.B., KROH, A., LUKENEDER, A., MANDIC, O., NICHTERL, T., WEINMANN, A.E., KRENN, M. (2023): "aus einem Trümmerhaufen des ausgebombten Hauses Wien III" - one century provenance context of the geological-paleontological collections in the Natural History Museum Vienna (1919 to 2019). – *Annalen des Naturhistorischen Museums Wien, Serie A*, 124: 101-124

BULGARIA

ZLATOZAR BOEV is supervising two PhD students: (1) IVAYLO ANGELOV: "Number, age structure and food spectrum of the breeding population of the Golden Eagle (*Aquila chrysaetos* Linnaeus, 1758) in Bulgaria"; (2) MIHAIL ILIEV: Spatial ecology and migration strategy in the Red-breasted Goose (*Branta ruficollis* Pallas, 1769).

BOEV, Z. (2022): Owls (Strigiformes Wagler, 1830) in Bulgaria: Past and Present (A Review of the Fossil Record and Present Status of Recorded Species). - In: Mikkola, H. J., editor. *Owls - Clever Survivors*. London: IntechOpen; [cited 2022 Sep 27]. Available from: <https://www.intechopen.com/online-first/83799> doi: 10.5772/intechopen.107371

BOEV, Z. (2022): Additional material of *Buteo spassovi* Boev & Kovachev, 1998 from the Upper Miocene locality Hadzhidimovo (Blagoevgrad region, SW Bulgaria). – *Geologica Balcanica*, 51 (3): 17-19.

BOEV, Z. (2023): Quaternary vertebrate fauna of Bulgaria – composition, chronology and impoverishment. – *Geologica Balcanica*, 52 (1), Sofia, April 2023, pp. 21–48. DOI: 10.52321/GeolBalc.52.1.21

BOEV, Z. 2023. Fossil record and distribution of the Hazel Grouse (*Tetrastes bonasia* (Linnaeus, 1758) (Phasianidae - Aves) in Bulgaria. – *Comptes rendus de l'Académie bulgare des Sciences*, 76(4): 549-553. DOI:10.7546/CRABS.2023.04.06

FLADERER, F.A., CHATZOPOULOU, K., STEIER, P., BOLKA, M., BOEV, Z. (2023): Eagle owls' predation within a highly diversified Late Glacial landscape: remains of pikas and hares (Lagomorpha) from the Loutra Almopias Cave (Central Macedonia, Greece). – *Geologica Balcanica*, 52 (2): 3–28.

BOEV, Z. (2023): Animal remains of the Late Antiquity settlement (1-4th c. AD) near Dolni Lukovit (Pleven Region, CN Bulgaria). – *ZooNotes*, 222: 1-2.

BOEV, Z. (2023): Holocene distribution of Common Crane (*Grus grus* (Linnaeus, 1758)) (Gruidae Vigors, 1825) in Bulgaria. – *Acta zoologica bulgarica*, 75 (3): 439-443.

POPULAR SCIENCE:

BOEV, Z. (2022): Hunting animals in Sofia in antiquity and the Middle Ages. – *Lov i ribolov*, 9: 70-75. (in Bulgarian).

BOEV, Z. (2022): The bearded owl – an ancient guest in the Pleistocene forests of Bulgaria. - *Priroda - BAS*, 3: 88-91. (in Bulgarian).

BOEV, Z. (2022): The last bustards in Bulgaria. – *Lov i ribolov*, 10: 64-69. (in Bulgarian).

BOEV, Z. (2022): Grouse - a long-forgotten game for our hunters. – *Lov i ribolov*, 12: 72-77.

BOEV, Z. (2023): The gray crane – once a hunting bird, today's icon of Priroda protection. – *Lov i ribolov*, 1: 68-73. (in Bulgarian).

BOEV, Z. (2023): Terrible birds. – *Priroda, BAS*, 1: 56-61. (in Bulgarian).

BOEV, Z. (2023): Ostriches in Antarctica. – *Priroda, BAS*, 1: 62-65. (in Bulgarian).

BOEV, Z. (2023): The capercaillie - ancient and modern hunting trophy. – *Lov i ribolov*, 4: 64-68. (in Bulgarian).

BOEV, Z. (2023): How did the lamprey become a mountaineer? – *Lov i ribolov*, 5: 56-60. (in Bulgarian).

BOEV, Z. (2023): Giant eagles in the past and today. – *Priroda - BAS*, 2: 70-75. (in Bulgarian).

BOEV, Z. (2023): A unique museum collection of birds. – *Priroda - BAS*, 2: 102-111. (in Bulgarian).

CHINA

ALIDA BAILLEUL and her colleagues from the Institute of Vertebrate Paleontology and Paleoanthropology (IVPP) has published a taphonomy paper that uses extant birds to assess fossilization and decay of cells in fossil birds and dinosaurs (Bailleul et al., 2023a). She is currently pursuing this type of experimental taphonomy with Professor Pan Yanhong from Nanjing University.

As a collaborator with other IVPP colleagues, she has helped work on a paper on the microstructure of Mesozoic bird teeth (Wang et al., 2023) and on a project using fossilized phytoliths to reconstruct the diet (i.e., folivory) of basal birds from the Jehol Biota (Wu et al., 2023).

With postdoctoral researcher and former IVPP Ph.D. student Wu Qian, Alida Bailleul and Li Zhiheng are working on understanding ancient protein preservation in a fossil ostrich egg from the Linxia Basin of Northwest China (Bailleul et al., 2023b). Alida Bailleul presented this work at SAPE in Málaga in May 2023.

At the meeting, she also started a new research collaboration between France and China with Antoine Louchart.

BAILLEUL, A.M., QIAN, W., DONG-SHENG, L., ZHIHENG, L., & ZHONGHE, Z.H. (2023a): A preliminary histotaphonomy

experiment suggests chondrocytes within calcified cartilage have a higher preservation potential than osteocytes. *Vertebrata Palasiatica* 61 (2), 108-122. 10.19615/j.cnki.2096-9899.230309.

BAILLEUL, A.M., QIAN, W., & ZHIHENG, L. (2023b): Microscopic examination of a Miocene ostrich eggshell with mineral-bound peptides. – 10th International Meeting of the Society of Avian Paleontology and Evolution. Málaga, Spain, May 8-13, 2023.

WANG, Y., LI, Z., WANG, C.C., BAILLEUL, A.M., WANG, M., O'CONNOR, J., LI, J., ZHENG, X., PEI, R., TENG, F. & WANG, X., ZHONGHE ZHOU. (2023): Comparative microstructural study on the teeth of Mesozoic birds and non-avian dinosaurs. – *Royal Society Open Science* 10, no. 5 (2023): 230147.

WU, Y., YONG GE, HAN HU, STIDHAM, T.A., ZHI-HENG LI, BAILLEUL A.M., & ZHONGHE ZHOU (2023): Intra-gastric phytoliths provide evidence for folivory in basal avialans of the Early Cretaceous Jehol Biota. – *Nature Communications*, 14(1): 4558.

COLOMBIA

JONATHAN PELEGRIN-RAMÍREZ is currently leading research on 11 avian postcranial remains from the middle Miocene (ca. 13-15 Ma) of La Venta, famous for its fossil mammals. This work is in collaboration with Carolina Acosta, Andrés Link, Sibloan Cooke, Dirley Cortes and Carlos Jaramillo. Up until now, we have identified four bird lineages: Suliformes, Anhinga; Charadriiformes, with specimens of larid and haematopodid affinities; Accipitridae, with a specimen of Pandionidae, and lastly a possible Phorusrhacidae withing the subfamily Psilopterinae. These findings are preliminary and will be presented at the II Congreso Colombiano de Paleontología, which will take place in Bogotá, November 15-17, 2023.

ALFONSO-ROJAS, A., HERRERA-GUTIERREZ, L.M., SUÁREZ, C., CIANCIO, M.R., PELEGRIN, J.S., & CADENA, E.A. (2021): Late Pleistocene biota from Pubenza, Colombia; turtles, mammals, birds, invertebrates and

plant remains. – *Journal of Quaternary Science*, 36(3): 450-466.

FARGALLO, J.A., NAVARRO-LÓPEZ, J., CANTALAPIEDRA, J.L., PELEGRIN, J.S., & HERNÁNDEZ FERNÁNDEZ, M. (2022): Trophic niche breadth of Falconidae species predicts biomic specialisation but not range size. – *Biology*, 11(4): 522.

PELEGRIN, J.S., CANTALAPIEDRA, J.L., GAMBOA, S., MENÉNDEZ, I., & HERNÁNDEZ FERNÁNDEZ, M. (2023): Phylogenetic biome conservatism as a key concept for an integrative understanding of evolutionary history: Galliformes and Falconiformes as study cases. – *Zoological Journal of the Linnean Society*, 198(1): 47-71.

PELEGRÍN, J.S., & ACOSTA HOSPITALECHE, C. (2022): Evolutionary and Biogeographical History of Penguins (Sphenisciformes): Review of the Dispersal Patterns and Adaptations in a Geologic and Paleoeological Context. – *Diversity*, 14(4): 255.

FRANCE

The preceding year has been relatively quiet globally for paleo-ornithologists in Lyon, with, among exceptions to this, the participation of ANAÏS DUHAMEL, and ANTOINE LOUCHART, in the SAPE meeting in Málaga, in early May 2023: they were extremely happy to meet, or meet again after a long time, many colleagues from around the world, and they want to express their gratitude to the Spanish organizers of this great event, which was so well prepared. Anaïs did her first year of PhD on osteological proxies of migratory behaviour, and accumulated important data. In parallel, she has been working on publishing soon: her results concerning the isotopic approach of the question; and on the other hand, a methodological approach of the 3D data. The team, together with JULIAN P. HUME and other colleagues, is preparing a new field session on Saint Helena for Summer 2024, continuing their productive work there, and they are preparing a first publication on a new extinct species for the island. SÉGOLÈNE RIAMON is now searching a position in curation of collections, and the first paper on her PhD research about *Sylviornis* has been published. Antoine edited for *Geobios* six very nice scientific papers for the thematic volume in honour of Jean-Christophe Balouet: these six papers are published online, and an introductory homage paper will appear online before Christmas; the complete volume will be printed in paper

version around March 2024. Antoine wants to warmly thank all the authors who contribute to this volume and apologises for the delays.

The paper by CÉCILE MOURER-CHAUVIRÉ et al., on the new avian remains from La Borie, was issued online in March 2023. This paper includes the description of numerous post-cranial skeletal elements of the species *Gastornis laurenti*, described in 2020. It also includes the description of a primitive form of Galliformes and of two Gruiformes referred to the families Aramidae and Messelornithidae.

MOURER-CHAUVIRÉ, C., BOURDON, E., DUFFAUD, S., LE ROUX, G. & LAURENT, Y. (2023): New avian remains from the early Eocene of La Borie, southern France. – *Geobios*.

<https://doi.org/10.1016/j.geobios.2022.10.004>

RIAMON, S., BALOUET, J.C., ROLLAND-GUILLARD, J., SALAVIALE, C., GUENSER, P., STEYER, J.S., & LOUCHART, A. (2022): The endocast of the insular and extinct *Sylviornis neocaledoniae* (Aves, Galliformes), reveals insights into its sensory specializations and its twilight ecology. – *Scientific Reports*, 12(1): 21185. <https://doi.org/10.1038/s41598-022-14829-z>

GERMANY

GERALD MAYR continues his studies of the fossil birds from the London Clay of Walton-on-the-Naze (UK). Together with Vanesa De Pietri, Paul Scofield, and various other colleagues he is also involved in the study of Paleocene birds from the Waipara Greensand in New Zealand.

MASSONNE, T., BÖHME, M., & MAYR, G. (2022): A tarsometatarsus from the upper Eocene locality Na Duong in Vietnam – the first Palaeogene fossil bird from Vietnam. – *Alcheringa*, 46 (3/4): 291-296; <https://doi.org/10.1080/03115518.2022.2126010>

MAYR, G. & KITCHENER, A.C. (2022): Psittacopedids and zygodactylids: The diverse and species-rich psittacopasserine birds from the early Eocene London Clay of Walton-on-the-Naze (Essex, UK). – *Historical Biology*; doi: 10.1080/08912963.2022.2141629.

MAYR, G. & KITCHENER, A.C. (2023): New species from the early Eocene London Clay suggest an undetected early Eocene diversity of the Leptosomiformes, an avian clade that includes a living fossil from Madagascar. – *Palaeobiodiversity and Palaeoenvironments*, 103: 585-608.

MAYR, G. & KITCHENER, A.C. (2023): Early Eocene fossil illuminates the ancestral (diurnal) ecomorphology of owls and documents a mosaic evolution in the strigiform stem lineage. – *The Ibis*, 165: 231–247.

MAYR, G. & KITCHENER, A.C. (2023): Multiple skeletons of *Rhynchaetites* from the London Clay reveal the osteology of early Eocene ibises (Aves, Threskiornithidae). – *Paläontologische Zeitschrift*, 97: 425-442.

MAYR, G. & KITCHENER, A.C. (2023): A new fossil from the London Clay documents the convergent origin of a “mousebird-like” tarsometatarsus in an early Eocene

near-passerine bird. – *Acta Palaeontologica Polonica* 68 (1): 1–11.

MAYR, G. & KITCHENER, A.C. (2023): The Vastanavidae and Messelasturidae (Aves) from the early Eocene London Clay of Walton-on-the-Naze (Essex, UK). – *Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen* 307/2: 113–139.

MAYR, G., DE PIETRI, V.L., & KITCHENER, A.C. (2023): Narrow-beaked trogons from the early Eocene London Clay of Walton-on-the-Naze (Essex, UK). – *Journal of Ornithology*, 164: 749–764.

PEACOCK, J., SPELLMAN, G.M., FIELD, D.J., MASON, M.J. & MAYR, G. (2023): Comparative morphology of the avian bony columella. – *The Anatomical Record*; doi: 10.1002/ar.25278

MAYR, G. & KITCHENER, A.C. (2023): The Halcyornithidae from the early Eocene London Clay of Walton-on-the-Naze (Essex, UK): a species complex of Paleogene arboreal birds. – *Geobios*, doi: 10.1016/j.geobios.2023.06.003

MAYR, G., CARRIÓ, V., & KITCHENER, A.C. (2023): On the “screamer-like” birds from the British London Clay: An archaic anseriform-galliform mosaic and a non-galloanserine “barb-necked” species of *Perplexicervix*. – *Palaeontologia Electronica* 26(2): a3328; doi: 10.26879/1301.

MAYR, G., DE PIETRI, V.L., LOVE, L., MANNERING, A., CROUCH, E., REID, C. & SCOFIELD, R. P. (2023): Partial skeleton from the Paleocene of New Zealand illuminates the early evolutionary history of the Phaethontiformes (tropicbirds). – *Alcheringa*; doi: 10.1080/03115518.2023.2246528.

MAYR, G. & KITCHENER, A.C. (2023): Early Eocene fossils elucidate the evolutionary history of the Charadriiformes (shorebirds and allies). – *Journal of Paleontology*; doi: 10.1017/jpa.2023.51.

HUNGARY

EUGEN KESSLER and his Ph.D. student IDA HORVÁTH continue the study of the Paleogene and Neogene avifauna of the Carpathian Basin, and the identified Oligocene and Miocene material was published last year. Ida Horváth also continued the identification of the Baden material from Mátraszőlös 3 (N-Hungary), the first part of which is already being published.

KESSLER, J. (E). & HORVÁTH, I. (2022): Presentation of so far undetermined bird remains from the Upper

Miocene (MN 13) of Polgárdi 4 and 5 (Fejér county, West Hungary). – *Ornis Hungarica*, 30(2): 163–175. DOI: 10.2478/orhu-2022-0027.

KESSLER, J. (E). & HORVÁTH, I. (2023): *Praecarbo strigoniensis*, a new genus and species of Cormorants (Phalacrocoracinae) from the Late Oligocene of Hungary. – *Ornis Hungarica*, 31(1): 126–132. DOI: 10.2478/orhu-2023-0008

ITALY

In the last year, MARCO PAVIA continued the study of birds from South African sites with the analysis of barn owls and parrots from the Cradle of Humankind (as presented in Malaga) and the continuation of the studies of bird remains from Langebaanweg in collaboration with the Iziko Museum of Cape Town. We also finished the study of the Holocene remains from Socotra Island originated from pellet accumulation of a Barn owl, which has never been recorded in the Socotra Archipelago.

Other projects on fossil birds from Italy are still ongoing. New material from the Miocene of Gargano, which includes many bird bones, will be studied soon.

Marco is also still busy in local projects on extant birds about the evolution of European bird species, their

relationships with Africa, also inferred by the study of blood parasites.

RAMELLO, G., DELFINO, M., MORI, E., VIVIANO, A., PAVIA, G., CARNEVALE, G., & PAVIA, M. (2023): Holocene vertebrate assemblages provide the first evidence for the presence of the barn owl (Tytonidae, *Tyto alba*) on Socotra Island (Yemen). – *Geobios*, IN PRESS.

BOANO, G., PAVIA, M., ALESSANDRIA, G., & MINGOZZI, T. (2023): An Operational Checklist of the Birds of Northwestern Italy (Piedmont and Aosta Valley). – *Diversity*, 15: 550.

PAVIA, M. (2022): The Italian fossil record of birds. IN: Brichetti, P., Fracasso, G. (eds.): *The birds of Italy*. Edizioni Belvedere, pp. 41-54.

NEW ZEALAND

In Christchurch, VANESA DE PIETRI (University of Canterbury, UC) and PAUL SCOFIELD (Canterbury Museum), continue their research on the Paleocene birds from the Waipara Gorge. GERALD MAYR will be visiting this summer do further research on the multiple penguin specimens from this site.

Together with Catherine Reid (UC), Vanesa and Paul ran the first series of lectures and labs on vertebrate palaeontology, which has taken up a lot of their time this year.

SOPHIE KELLY completed her MSc thesis at UC, under the supervision of Vanesa, Catherine Reid, and Paul, on Pliocene procellariiforms from the Taranaki Region. She has presented her research at Palaeo Down Under in Perth and is currently working on a manuscript for publication.

Work on the Miocene St Bathans fauna from central Otago continues alongside TREVOR WORTHY. A few publications on this fauna are underway and are expected to be part of the SAPE Proceedings.

MAYR, G., DE PIETRI, V.L., LOVE, L., MANNERING, A., CROUCH, E., REID, C. & SCOFIELD, R. P. (2023): Partial skeleton from the Paleocene of New Zealand illuminates the early evolutionary history of the Phaethontiformes (tropicbirds). – *Alcheringa*; doi: 10.1080/03115518.2023.2246528.

MAYR, G., DE PIETRI, V.L., & KITCHENER, A.C. (2023): Narrow-beaked trogons from the early Eocene London Clay of Walton-on-the-Naze (Essex, UK). – *Journal of Ornithology*, 164: 749–764.

Worthy, T.H., De Pietri, V.L., Scofield, R.P., & Hand, S.J. (2023): A new Eocene species of presbyornithid (Aves, Anseriformes) from Murgon, Australia. – *Alcheringa: An Australasian Journal of Palaeontology*.

<https://doi.org/10.1080/03115518.2023.2184491>.

POLAND

JADWISZCZAK, P., SVENSSON-MARCIAL, A. & MÖRS, T. (2023): An integrative insight into the synsacral canal

of fossil and extant Antarctic penguins. – *Integrative Zoology*, 18: 237–253.

RUSSIA

- SERDYUK, N.V., SYROMYATNIKOVA, E.V., ZELENKOV, N.V., ABDYKANOVA, A., ALISHER KYZY, S., & SHNAIDER, S.V. (2023): Holocene vertebrate fauna in Fergana Valley, Kyrgyzstan, based on fossils from the Obishir-5 rock shelter – *Geobios*. 2023. DOI: 10.1016/j.geobios.2023.01.002
- ZELENKOV, N.V. (2022): Fossil Stone Shelduck (*Tadorna petrina*) and Shoveler (*Spatula praeclypeata* sp. nov.) – the Oldest Early Pleistocene Ducks (Aves: Anatidae) from Crimea – *Paleontological Journal*, 56: 682-692.
- ZELENKOV, N.V. (2023): Small Ducks (Aves: Anatidae) from the Early–Middle Miocene of Eurasia. 1. A revision of *Anas velox* Milne-Edwards, 1868 and *Anas soporata* Kurochkin, 1976 – *Paleontological Journal*, 57: 452-462.
- ZELENKOV, N.V. (2023): Small Ducks (Aves: Anatidae) from the Early–Middle Miocene of Eurasia. Part 2. The Fauna of Tagay Locality (Baikal Region; Eastern Siberia) – *Paleontological Journal*, 57: 560-572.
- ZELENKOV, N.V. (2023): Small Ducks (Aves: Anatidae) from the Early–Middle Miocene of Eurasia. 3. A revision of *Mionetta natator* (Milne-Edwards, 1867) – *Paleontological Journal*, 57: 659-670.
- ZELENKOV, N.V. (2023): A New Species of Sandgrouse (Aves: Pteroclididae) from the Early Pleistocene of the Crimea – *Doklady Biological Sciences*, 511: 264-266.
- ZELENKOV, N.V. & ARKHANGELSKY, M.S. (2023): New data on hesperornithids (Aves: Ornithurae) from the Campanian of the Lower Volga Region (Late Cretaceous, Russia) – *Doklady Biological Sciences*, 509: 100-102.
- ZELENKOV, N.V. & BELICHENKO, E.S. Dynamics of the late Quaternary avifauna of Western Cuba (based on material from El Abrón Cave) – *Doklady Biological Sciences*, 503: 54-57.
- ZELENKOV, N.V. & GONZALEZ, S.F. (2022): A new extinct species of *Margarobyas* (Strigiformes) and the evolutionary history of the endemic Cuban Bare-legged Owl (*M. lawrencii*) – *Journal of Vertebrate Paleontology*, 41: 4. DOI: 10.1080/02724634.2021.1995869
- ZELENKOV, N.V., SYROMYATNIKOVA, E.V., TARASENKO, K.K., TITOV, V.V., & TESAKOV, A.S. (2022): Southeastern Europe as the arena of vertebrate evolution in the late Miocene – *Paleontological Journal*. 2022. Vol. 56. No. 2. P. 213-226.

SPAIN

FRANCISCO “KIKO” SERRANO continues with his role at the University of Malaga (Spain) and as Research Associate at the Natural History Museum of Los Angeles County (CA, U.S.A). He has dedicated a big part of the last year to the organization of the meeting of our society in Málaga and is now editing the Special Issue of the 10th SAPE Meeting that will be published in *Geobios* in spring 2024. His research on the aerial properties of early Cretaceous birds has culminated with a new publication on the flight behavior of *Confuciusornis*. In addition, his collaboration in a project to study changes in the axial skeleton in birds, dinosaurs, and other tetrapods, has resulted in one publication so far.

- CHIAPPE, L.M., SERRANO, F.J., ABRAMOWICZ, S. & GÖHLICH, U.B. (accepted): Flight Performance of the Early Cretaceous Bird *Confuciusornis sanctus*: Evidence from an Exceptionally Preserved Fossil. – *Spanish Journal of Palaeontology*
- FIGUEIRIDO, B., SERRANO, F.J., PÉREZ-RAMOS, A., FERRÓN, H., ESTEBAN, J.M., & MARTIN-SERRA A. (2022): Body-axis organization in tetrapods: a model-system to disentangle the developmental origins of convergent evolution in deep time. – *Biology Letters*, 18: 20220047

SWEDEN

PER ERICSON continues to work on the systematics of birds using primarily molecular data together with colleagues in Sweden and China. He is currently involved in a long-term investigation of the bowerbird family (Ptilonorhynchidae) and he also studies ancient DNA in bird fossils from USA (with Steve Emslie), Europe (with John Stewart) and China (with Zhonghe Zhou).

TOMMY TYRBERG has finished a second edition of "Pleistocene Birds of the Palearctic"; anyone wanting a copy may contact him (tommy.tyrberg@gmail.com).

BACHMANN, L., BEERMANN, J., BREY, T., DE BOER, H.J., DANNHEIM, J., EDVARDSEN, B., ERICSON, P.G.P., HOLSTON, K.C., JOHANSSON, V.A., KLOSS, P., KONIJNENBERG, R., OSBORN, K., PAPPALARDO, P., PEHLKE, H., PIEPENBURG, D., STRUCK, T.H., SUNDBERG, P., SVALHEIM MARKUSSEN, S., TESCHKE, K. & VANHOVE, M. (2023): The role of systematics for understanding ecosystem functions: *Proceedings of the Zoologica*

Scripta Symposium, Oslo, Norway, 25 August 2022. – *Zoologica Scripta*, 52: 187-214.

- CHEN, Y., GE, D., ERICSON, P.G.P., SONG, G., WEN, Z., LUO, X., YANG, Q., LEI, G. & QU, Y. (2023): Alpine burrow-sharing mammals and birds show similar population-level climate change risks. – *Nature Climate Change*. doi:10.1038/s41558-023-01772-8
- JOHANSSON, U.S., IRESTEDT, M. & ERICSON, P.G.P. (2023): Patterns of phylogenetic diversification in the Dollarbird (*Eurystomus orientalis*) and Azure Roller (*Eurystomus azureus*) complex. – *Molecular Phylogenetics and Evolution*, 189. doi:10.1016/j.ympev.2023.107909
- JOHNSON, K.R., OWENS, I.F.P., AND THE GLOBAL COLLECTION GROUP. 2023. A global approach for natural history museum collections. – *Science*, 379: 1192-1194.
- REEVE, A.H., GOWER, G., PUJOLAR, J.M., SMITH, B.T., PETERSEN, B., OLSSON, U., HARYOKO, T., KOANE, B.,

MAIAH, G., BLOM, M.P.K., ERICSON, P.G.P., IRESTEDT, M., RACIMO, F. & JØNSSON, K.A. (2023): Population genomics of Island thrush elucidates one of earth's great archipelagic radiations. – *Evolution Letters*, 7: 24-36.

ZANG, W., JIANG, Z., ERICSON, P.G.P., SONG, G., DROVETSKI, S.V., SAITOH, T., LEI, F. & QU, Y. (2023): Evolutionary relationships of mitogenomes in a recently radiated Old World avian family. – *Avian Research*. doi:10.1016/j.avrs.2023.100097

ERICSON, P.G.P. & IRESTEDT, M. (2022): Comparative population genomics reveal glacial cycles to drive

diversifications in tropical montane birds (Aves, Timaliidae). – *Avian Research*, 13: 100063.

GE, D., QU, Y., DENG, T., THULLER, W., FISER, C., ERICSON, P.G.P., GUO, B., DE LA SANCHA, N.U., VON DER HEYDEN, S., HOU, Z., LI, J., ABRAMOV, A., VOGLER, A.P., JØNSSON, K.A. & MITTERMEIER, R. (2022): New progress in exploring the mechanisms underlying extraordinarily high biodiversity in global hotspots and their implications for conservation. – *Diversity and Distributions*, 28: 2448-2458.

UNITED KINGDOM

DANIEL FIELD was delighted to see SAPE colleagues in Málaga after such a long time apart. It was especially enjoyable to attend the meeting with many members of his research group, who presented research on a range of topics in avian palaeontology and evolution. Daniel is pleased to share that he was recently promoted to Professor of Vertebrate Palaeontology in the Department of Earth Sciences at Cambridge and maintains his role as Strickland Curator of Ornithology at the University of Cambridge Museum of Zoology (UMZC). Several students have graduated from the group in the past year, including LIZZY STEELL (PhD), who has taken up a teaching lectureship at UCL; PEI-CHEN KUO (PhD), who has begun a postdoc at the Field Museum in JINGMAI O'CONNOR'S group, and OLIVER DEMUTH (PhD anticipated Dec. 2023), who will begin a postdoc with PETER FALKINGHAM at Liverpool John Moores University in the new year.

Apart from his ongoing work on wing-propelled diving birds presented at the SAPE meeting in Málaga, Junya Watanabe has mainly been working on theoretical and methodological developments in morphometrics. Most recently, he has spent quite pleasant a time in visa application for a next postdoc at Universitat Autònoma de Barcelona, Spain. This will be about theoretical evo-devo and quantitative genetics of another famous group of winged animals—fruit flies—and will (hopefully) commence later this year.

For JULIAN PENDER HUME, it has been an exceptionally busy year with fieldwork, including a survey of the Seychelles Outer Islands; hence, missing SAPE this year, Galapagos, Hawaii, and a return to Itampolo, southwest Madagascar in November to work on new cave systems. A major excavation is aimed for May 2024. The year has also been good for new taxa, as JPH described two new fossil birds, a ground thrush *Geokichla longitarsus* from Mauritius and a subspecies of Abbott's Booby *Papasula abbotti nelsoni* from Mauritius and Rodrigues, Mascarenes. Work in progress includes a new, fossil petrel from Rodrigues and a new passerine from St Helena, a result of last year's trip there with Antoine Louchart. Two books are presently in prep, Fossil birds of Ice Age North America, due 2025, and a third edition of *Extinct Birds* due 2026. It is also a sad to note the recent passing of one of the last old school avian anatomist/artists, Philip Burton, whose contributions included the anatomy of the now extinct Huia *Heterochoa acutirostris*, a monograph published in 1974 that has yet to be surpassed.

BENITO, J., KUO, P.-C., WIDRIG, K.E., JAGT, J.W.M., & FIELD, D.J. (2022): Latest Cretaceous ornithurine supports a neognathous crown bird ancestor. – *Nature*, 612: 100-105. doi: <https://doi.org/10.1038/s41586-022-05445-y>. [JB, PCK, KEW PhD students]

BENITO, J., CHEN, A., BHULLAR, B.A-S., FIELD, D.J. (2022): Forty new specimens of Ichthyornis provide unprecedented insight into the postcranial morphology of crownward stem group birds. – *PeerJ*, 10:e13919. <https://doi.org/10.7717/peerj.13919>. [JB, AC PhD students]

BURTON, M.G.P., BENSON R.B.J., & FIELD, D.J. (2023): Direct quantification of skeletal pneumaticity reveals ecological drivers of a key avian trait. – *Proceedings of the Royal Society B*, 290: 20230160. <https://doi.org/10.1098/rspb.2023.0160> [MGPB master's student]

CHIAPPE, L.M., NAVALÓN, G., NAVA, W., MARTINELLI, A.G., & FIELD, D.J. (2022): Three-dimensional enantiornithine braincase clarifies the origin of the avian central nervous system and inner ear. – *Proceedings of the Royal Society B*, 289: 20221398. [GN postdoc]

GAYFORD, J.H., WHITEHEAD, D.A., FIELD, D.J. 2023. The selective drivers of allometry in sharks (Chondrichthyes: Elasmobranchii). – *Zoological Journal of the Linnean Society*, zlac110. <https://doi.org/10.1093/zoolinlean/zlac110>. [JHG undergrad student]

HEINEN, J. H., FLORENS, F. B. V., BAIDER, C., HUME, J. P., KISSLING, W. D., WHITTAKER, R. J., RAHBEK, C. & BORREGAARD, M. K. (2023): Novel plant-frugivore network on Mauritius is unlikely to compensate for the extinction of seed dispersers. – *Nature Communications*, 14: 1019. <https://doi.org/10.1038/s41467-023-36669-9>

HUME, J. P. (submitted): Dr Ayres and the first fossil dodo bone. – *Historical Biology*.

HUME, J. P. (2023): A new fossil species of booby (Sulidae: *Papasula*) from Mauritius and Rodrigues, Mascarene Islands, with notes on *P. abbotti* from Assumption Island. – *Zootaxa*, 5270(3): 507-536.

HUME, J. P. (2023): Osteological and historical data on extinct island night herons (Aves: Ardeidae), with special reference to the Mascarene Islands and Ascension. – *Geobios*, doi: <https://doi.org/10.1016/j.geobios.2023.01.009>

HUME, J. P. (2022): Beneath the feet of the dodo – a new ground thrush from Mauritius. <https://boc-online.org/beneath-the-feet-of-the-dodo-a-new-ground-thrush-from-mauritius>

- HUME, J. P. (2022): A new subfossil ground thrush (Aves: Turdidae: Geokichla) from Mauritius, Mascarene Islands. – *Bulletin of the British Ornithologists' Club*, 142(4): 388-403.
- KSEPKA, D.T., FIELD, D.J., HEATH, T.A., PETT, W., THOMAS, D.B., GIOVANARDI, S., & TENNYSON, A.J.D. (2023): Largest-known fossil penguin clarifies the evolution of sphenisciform body size and flipper anatomy. – *Journal of Paleontology*: 1-20. doi:10.1017/jpa.2022.88.
- KUO, P.-C., BENSON, R.B.J., & FIELD, D.J. (2023): The importance of fossils in macroevolutionary analyses of 3D geometric morphometric data: a case study of galloanseran quadrates. – *Journal of Morphology*, 284(6): e21594. <https://doi.org/10.1002/jmor.21594>. [PCK PhD student]
- LOWI-MERRI, T.M., DEMUTH, O.E., BENITO, J., FIELD, D.J., BENSON, R.B.J., CLARAMUNT, S., & EVANS, D.C. (2023): Reconstructing locomotor ecology of extinct avialans: a case study of Ichthyornis comparing sternum morphology and skeletal proportions. – *Proceedings of the Royal Society B*, 290: 20222020. <http://doi.org/10.1098/rspb.2022.2020>. [OED PhD student, JB postdoc]
- MATTHEWS, T. J., WAYMAN, J. P., WHITTAKER, R. J., CARDOSO, P., HUME, J. P., SAYOL, F., PROIOS, K., MARTIN, T. E., BAISER, B., BORGES, P. A. V., KUBOTA, Y., DOS ANJOS, L., TOBIAS, J., SOARES, F., SI, X., DING, P., MENDENHALL, C. D., SIN, Y. C. K., RHEINDT, F. E., TRIANTIS, K. A., RIGAL, F., GUILHAUMON, F., WATSON, D., BROTONS, L., BATTISTI, C., CHU, O. & FRANÇOIS, R. (2023): A global analysis of avian diversity–area relationships in the Anthropocene. – *Ecology Letters*, 26: 965-982. DOI: 10.1111/ele.14203
- MATTHEWS, T. J., TRIANTIS, K. A., WAYMAN, J. P., MARTIN, T. E., HUME, J. P., CARDOSO, P., MENDENHALL, C. D., DUFOUR, P., RIGAL, F., FAURBY, S., COOKE, R., JØRGENSEN, M. W., SOARES, F. C., ULRICH, W., KUBOTA, Y., WHITTAKER, R. J., PIGOT, A. L., THÉBAUD, C., JØRGENSEN, M. W., BENAVIDES, E., SOARES, F. C., ULRICH, W., KUBOTA, Y., SADLER, J. P., TOBIAS, J. A. & SAYOL, F. (submitted): The global loss of avian functional and phylogenetic diversity from anthropogenic extinctions. – *Science*.
- PEACOCK, J., SPELLMAN, G.M., FIELD, D.J., MASON, M.J., & MAYR, G. (2023): Comparative morphology of the avian bony columella. – *Anatomical Record*.
- STELL, E.M., NGUYEN, J., BENSON, R.B.J., & FIELD, D.J. (2023): Evolution of the passerine carpometacarpus helps illuminate the early fossil record of crown Passeriformes. – *Journal of Anatomy*, 242: 495-509. doi: 10.1111/joa.13761. [EMS PhD student]
- WATANABE, J. (2023): Exact expressions and numerical evaluation of average evolvability measures for characterizing and comparing **G** matrices. – *Journal of Mathematical Biology*, 86: 95. doi: [10.1007/s00285-023-01930-8](https://doi.org/10.1007/s00285-023-01930-8).
- WIDRIG, K., BHULLAR, B.A-S., & FIELD, D.J. (2023): 3D atlas of tinamou (Neornithes: Tinamidae) pectoral morphology: implications for reconstructing the ancestral neornithine flight apparatus. – *Journal of Anatomy*. [Widrig PhD student]

USA

California

LUIS CHIAPPE is delighted to be traveling again to China (National Natural History Museum in Beijing) to resume research on Jehol birds after a nearly 4-year pause caused by the COVID Pandemic. Elsewhere, he continues work on the late Cretaceous avifauna of "William's Quarry" (São Paulo, Brazil) - several papers are forthcoming in collaboration with ISMAR CARVALHO, AGUSTIN MARTINELLI, GUILLERMO NAVALON, DANIEL FIELD, and WILLIAM NAVA. He is also involved with projects on fossils from the early Cretaceous sites of Las Hoyas (Cuenca, Spain) and Montsec (Lleida, Spain), together with JESUS MARUGAN, GUILLERMO NAVALON, ANGELA BUSCALIONI, and SERGIO NEBRED, and continues collaborations on various aspects of early bird aerodynamics with FRANCISCO "KIKO" SERRANO. Luis was thrilled to host SERGIO NEBRED, who recently visited Los Angeles for a 3-month internship at the Natural History Museum.

Illinois

JINGMAI O'CONNOR (Field Museum of Natural History, Chicago) has been busy with students this past year, with three post-baccalaureates she is helping gain experience for applications to graduate school this winter. One of them gave a poster on the osteosclerotic histology of *Baptornis* at SVP this year. She is also advising two undergraduates on projects on Cretaceous fossil birds. This Fall her lab, the "Dead Bird Nerds," was joined by PhD student Alexander D. Clark, who published with Jingmai on the diet of *Longipteryx* earlier

- JOHNSON, K. R., OWENS, I. F. P., & THE GLOBAL COLLECTION GROUP (authors include L. Chiappe) (2023): A global approach for natural history museum collections. – *Science*, 379: 1192 (2023). DOI: 10.1126/science.adf6434
- PEÑALVER, E., ALVAREZ-PARRA, S., ARILLO, A., GRIMALDI, D. A., CHIAPPE, L. M., DELCLÓS, X., ALCALÁ, L., SANZ, J. L., SOLÓRZANO-KRAEMER, M. M., PERIS, D., KUNZ, R., HAMMEL, J. U., ANDERSON, S. R., & PÉREZ-DE LA FUENTE, R. (2023): Tree-associated avian dinosaur nesting and specialized arthropod nest fauna in the Cretaceous. – *PNAS*, 120(17): e2217872120.
- NEBRED, S., CHIAPPE, L. M., NAVALON, G., CHINSAMY, A., SANZ, J. L., BUSCALIONI, A. D., & MARUGAN-LOBON, J. (2023): A new enantiornithine specimen from the Lower Cretaceous of Las Hoyas: remarks on the diversity and life-history of these Mesozoic birds. – *Spanish Journal of Paleontology*, 38: 2023 <https://doi.org/10.7203/sjp.26504>

this year (see Clark et al., 2023) and will focus primarily on Mesozoic birds, and Pei-chen Kuo, a recent graduate from Daniel J. Field's lab in Cambridge University, who will continue his work on quadrate evolution but take it to the stem to also include Cretaceous birds. Postdoc Matteo Fabbri has finished his tenure and left for a postdoc in Neil Shubin's lab at the University of Chicago. Postdoc Yosef Kiat continues his excellent work on feather molt in extinct taxa (see Kiat & O'Connor 2023)

CLARK, A.D., HU H., BENSON, R.B.J., & O'CONNOR, J.K. (2023): Reconstructing the dietary habits and trophic positions of the Longipterygidae (Aves: Enantiornithes) using neontological and comparative morphological methods. – *PeerJ*, 11:1-32.

KIAT, Y., & O'CONNOR, J.K. (2023): Rarity of molt evidence in early pennaraptoran dinosaurs suggests annual molt evolved later among Neornithes. – *Communications Biology*, 6(687): 1-4.

LIU, S-M., LI, Z-H., LIU, D., & O'CONNOR, J.K. (2023): Quantifying the gastral mass in Early Cretaceous ornithuromorphs (Aves: Ornithothoraces) from the Jehol avifauna. – *Palaeontology* e12677, 1-17.

O'CONNOR, J.K., KIAT, Y., MA, H-D., AI, T-Y., WANG, L-H., & BI S-D. 2023. Immature feathers preserved in

Burmite provide evidence of rapid molting in enantiornithines. – *Cretaceous Research*, 149: 105572.

STIDHAM, T., O'CONNOR, J.K., LI, & Z-H. (2023): The Pleistocene Zhoukoudian 'Peking Man' site records the first Beijing (China) evidence of the Northern Raven (*Corvus corax*). – *Journal of Ornithology*.

WANG, Y., LI, Z-H., WANG, C-C., BAILLEUL, A.M., WANG, M., O'CONNOR, J.K., LI, J-H., ZHENG, X-T., PEI, R., TENG, F-F., WANG, X-L., & ZHOU, Z-H. (2023): Comparative microstructural study on the teeth of Mesozoic birds and non-avian dinosaurs. – *Royal Society Open Science*, 10(5): 230147.

New Mexico

News from New Mexico State University, Las Cruces: PETER HOUDE, MEIG DICKSON, and DAKOTA CAMARENA described *Anachronornis anhimops* and others in "Basal Anseriformes from the early Paleogene of North America and Europe". Peter is describing a new phorusrhacid-like bird from the early Eocene of Wyoming, which he recently presented at 2023 Virtual Meeting of Society of Vertebrate Paleontology, Evolution 2023, and 4th Palaeontological Virtual Congress 2023. Dakota earned his MS degree last May for his thesis "A New Avifauna from the Early Eocene of the Clarks Fork Basin in Northcentral Wyoming", which is predominated by plesiocathartids and other small arboreal species. MS student IAN GAROFALO is putting the final touches on his thesis on a 3-dimensionally preserved skull and partial skeleton of cf. *Tynskya waltonensis* from the London Clay, which he presented at SVP 2022. PhD candidate Meig Dickson presented ongoing research on global avifaunal dynamics across the Paleocene/Eocene Thermal Maximum at SVP 2023. In related news, Peter Houde published the papers listed below and is currently

collaborating with "Birds 10,000 Genomes" (B10K) on a manuscript on avian phylogeny, their timetree, and demographics in deep time from phylogenomic data. He also presented Ar-Ar isotopic date estimates of local Quaternary sites at the 2023 annual Meeting of the New Mexico Geological Society.

HOUDE, P., DICKSON, M., & CAMARENA, D. (2023): Basal Anseriformes from the early Paleogene of North America and Europe" – *Diversity*, 15: 233; doi.org/10.3390/d15020233

HOUDE, P., BRAUN, E.L., & ZHOU, L. (2020): Deep-time demographic inference suggests ecological release as driver of neoavian adaptive radiation. – *Diversity*, 12(4):164; doi:10.3390/d12040164

HOUDE, P., BRAUN, E.L., NARULA, N., MINJARES, U., & MIRARAB, S. (2019): Phylogenetic signal of indels and the neoavian radiation. – *Diversity*, 11(7):108; doi:10.3390/d11070108

South Carolina

ADAM SMITH continues in his 8th year as Director and Curator at Clemson University's Campbell Geology Museum. Most of 2023 was consumed by efforts to rebuild the museum after water damage destroyed the display gallery, and many permanent exhibits. Research projects including collaborations focused on extant and

extinct birds from locations in the USA, Egypt, Australia, and China, as well as projects on avian neuroanatomy, bone histology and feather microstructure in collaboration with Clemson University students, faculty, and colleagues from abroad, are ongoing.