

**2022 RESEARCH OUTPUT** (indexed review, proceedings, book, book chapter, financed projects, Master and PhD supervision)

**Sedimentary Basins and Palaeontology Group (GEOBIOTEC-NOVA)**

**Indexed review:**

Albesa, J.; López, J.M.; **Crespo, V.D.** 2022. Filling the gap in knowledge of early Miocene continental molluscs of southwest Europe: gastropods from Ribesalbes-Alcora Basin (Spain). *Bulletin of Geosciences*. 97 - 2, 141 - 163. <https://doi.org/10.3140/bull.geosci.1856> (Q2)

Castanera, D., Pascual, C., Canudo, J.I. and **Puértolas-Pascual, E.**, 2022. A new look at *Crocodylopodus mejjidei*: implications for crocodylomorph locomotion. *Journal of Vertebrate Paleontology*, 41(5), e2020803. <https://doi.org/10.1080/02724634.2021.2020803> (Q1)

**Chichorro, M.**, Solá A.R., Bento dos Santos. T., Amaral, J.L., Crispim, L., 2022. Cadomian/Pan-African consolidation of the Iberian Massif assessed by its detrital and inherited zircon populations: is the ~610Ma age peak a persistent Cadomian magmatic inheritance or the key to unravel its Pan-African basement? *Geologica Acta*, 20.15, 1-29. <https://doi.org/10.1344/GeologicaActa2022.20.15> (Q2)

Choi, S., Yang, T. R., **Moreno-Azanza, M.**, Zhang, S., & Kim, N. H. (2022). Triassic sauropodomorph eggshell might not be soft. *Nature*, 610(7932), E8-E10. <https://doi.org/10.1038/s41586-022-05151-9> (Q1)

Choi, S., Barta, D. E., **Moreno-Azanza, M.**, Kim, N. H., Shaw, C. A., & Varricchio, D. J. (2022). Microstructural description of the maniraptoran egg Protoceratopsidovum. *Papers in Palaeontology*, 8(2), e1430. <https://doi.org/10.1002/spp2.1430> (Q1)

Coelho, A.R.F., Lidon, F.C., Pessoa, C.C., Daccak, D., Luís, I.C., Marques, A.C., Ramalho, J.C., Semedo, J.M N., Silva, M.M., Pais, I.P., Brito, M.G., **Kullberg, J.C.**, **Legoinha, P.**, Simões, M., Scotti-Campos, P., Pessoa, M.F., Reboredo, F.H., 2022. Mineral monitorization in different tissues of *Solanum tuberosum* L. during calcium biofortification process. *Horticulturae*, 8, 1020. <https://doi.org/10.3390/horticulturae8111020> (Q1)

Coelho, A.R.F., Ramalho, J.C., Lidon, F.C., Marques, A.C., Daccak, D., Pessoa, C.C., Luís, I.C., Guerra, M., Leitão, R.G., Semedo, J.M.N., Silva, M.M., Pais, I.P., Leal, N., Galhano, C., Rodrigues, A.P., **Legoinha, P.**, Silva, M.J., Simões, M., Scotti Campos, P., Pessoa, M.F., Reboredo, F.H., 2022. Foliar Spraying of *Solanum*

*tuberosum* L. with CaCl<sub>2</sub> and Ca(NO<sub>3</sub>)<sub>2</sub>: Interactions with nutrients accumulation in tubers. *Plants*, 11, 1725. <https://doi.org/10.3390/plants11131725> (Q1)

Conti, S., Tschopp, E., **Mateus, O.**, Zanoni, A., Masarati, P., Sala, G., 2022. Multibody analysis and soft tissue strength refute supersonic dinosaur tail, *Scientific Reports*, 12, 19245. <https://doi.org/10.1038/s41598-022-21633-2> (Q1)

**Crespo, V. D., Ríos, M.** and Ruiz-Sánchez, F. J. 2022. Cainotheriids vs. lagomorphs: study of their ecological niche partitioning during the early Miocene of the Ribesalbes-Alcora Basin (Castelló, Spain). *Historical Biology* (2022): 1-11. (Q1)

**Crespo, V.D.** 2022. Erratum to *Parasorex ibericus* from Venta del Moro (late Miocene, Iberian Peninsula): a new light on the tribe Galericipini. *Palaeontographica, Abteilung A: Palaeozoology – Stratigraphy*. 320 - 1-3, 183 – 183. JCR (2021): 2.071. <https://doi.org/10.1127/pala/2022/0124>

**Crespo, V.D., Ríos, M.**, Ruiz-Sánchez, F.J. y Montoya, P. 2022. Cainotheriids vs. Lagomorphs: study of their ecological niche partitioning during the early Miocene of the Ribesalbes-Alcora Basin (Castelló, Spain). *Historical Biology*, 34:8, 1509-1519. <https://doi.org/10.1080/08912963.2022.2042809> (Q1)

**Crespo, V.D.;** Goin, F.J.; Pickford, M. 2022. The last African metatherian. *Fossil Record*. 25 - 1, 173 - <https://doi.org/10.3897/fr.25.80706> (Q2)

**Crespo, V.D.;** Vasile, S.; Petculescu, A.; Ratoi, B.G.; Haiduc, B.S. Accepted. The late Pliocene small mammals (Eulipotyphla, Rodentia, Lagomorpha) from Beresti and Mălusteni (eastern Romania): a fresh look at old collections. *Earth and Environmental Science Transactions of The Royal Society of Edinburgh*. <https://doi.org/10.1017/S175569102200024X> (Q2)

Daccak, D., Lidon, F.C., Luís, I.C., Marques, A.C., Coelho, A.R.F., Pessoa, C.C., Caleiro, J., Ramalho, J.C., Leitão, A.E., Silva, M.J., Rodrigues, A.P., Guerra, M., Leitão, R.G., Campos, P.S., Pais, I.P., Semedo, J.N., Alvarenga, N., Gonçalves, E.M., Silva, M.M., **Legoinha, P.**, Galhano, C., **Kullberg, J.C.**, Brito, M., Simões, M., Pessoa, M.F., Reboredo, F.H., 2022. Zinc biofortification in *Vitis vinifera*: Implications for quality and wine production. *Plants*, 11, 2442. <https://doi.org/10.3390/plants11182442> (Q1)

Daccak, D., Lidon, F.C., Pessoa, C.C., Luís, I.C., F.C., Coelho, A.R.F., Marques, A.C., Ramalho, J.C., Silva, M.J., Rodrigues, A.P., Guerra, M., Leitão, R.G., Campos, P.S., Pais, I.P., Semedo, J.N., Silva, M.M., **Kullberg, J.C.**, Brito, M., Galhano, C., **Legoinha, P.**, Pessoa, M.F., Simões, M., Reboredo, F.H., 2022. Enrichment of grapes with zinc-efficiency of foliar fertilization with ZnSO<sub>4</sub> and ZnO and implications on winemaking. *Plants*, 11, 1399 <https://doi.org/10.3390/plants11111399> (Q1)

Demuth OE, Benito J, **Tschopp E**, Lautenschlager S, Mallison H, Heeb N, Field DJ. 2022. Topology-based three-dimensional reconstruction of delicate skeletal fossil remains and the quantification of their taphonomic deformation. *Frontiers in Ecology and Evolution* 10: 828006. (Q1)

Fernandes, A. E., **Mateus O.**, Andres B., Polcyn M. J., Schulp A. S., Gonçalves A. O., & Jacobs L. L. 2022. Pterosaurs from the Late Cretaceous of Angola. *Diversity* 14, Number 9 <https://www.mdpi.com/1424-2818/14/9/741> (Q2)

Goin, F.J., **Crespo, V.D.**, Pickford, M. 2022. A new adapisoriculid mammal (Eutheria) from the early-middle Eocene of Namibia. *Communications of the Geological Survey of Namibia*, 25, 56-65.

Goin, F.J.; Vieytes, E.C.; **Crespo, V.D.**; Oliveira, E. Accepted. †*Estelestes ensis* (Mammalia, Metatheria) from the early Eocene of Baja California (Mexico) as a generalized polydolopimorphian. *Journal of Paleontology*, 1-6. <https://doi.org/10.1017/jpa.2022.105> (in press, online) (Q2)

González Dionis, J., Cruzado Caballero, P., Castillo Ruiz, C., Cadavid Melero, E. y **Crespo, V. D.** 2022. First study of the bat fossil record of the mid-Atlantic volcanic islands. *Earth and Environmental Science Transactions of the Royal Society of Edinburgh* 113 (1): 13-27 <https://doi.org/10.1017/S1755691021000384> (Q2)

Guillaume, A. R. D., Costa F., & **Mateus O.** 2022. Stegosaur tracks from the Upper Jurassic of Portugal: new occurrences and perspectives. *Ciências da Terra / Earth Sciences Journal*. 20 (1), 37-60 <https://doi.org/10.21695/cterraesj.v20i1.437>

Guillaume, A. R. D., Natário C., **Mateus O.**, & **Moreno-Azanza M.** 2022. Plasticity in the morphology of the fused frontals of Albanerpetontidae (Lissamphibia; Allocaudata). *Historical Biology* 1-18. <https://doi.org/10.1080/08912963.2022.2054712> (Q1)

Hendrickx, C., Bell, P.R., Pittman, M., Milner, A.R., Cuesta, E., O'Connor, J., Loewen, M., Currie, P.J., **Mateus, O.**, Kaye, T.G. and Delcourt, R., 2022. Morphology and distribution of scales, dermal ossifications, and other non-feather integumentary structures in non-avian theropod dinosaurs. *Biological Reviews*, 97 (3): 960-1004. <https://doi.org/10.1111/brv.12829> (Q1)

Jésus, V.J.P., **Mateus, O.**, Milàn, J. & Clemmensen, L.B. 2022. First occurrence of a frog-like batrachian (Amphibia) in the Late Triassic Fleming Fjord Group, central East Greenland. *Bulletin of the Geological Society of Denmark*, Vol. 70, pp. 117–130. ISSN 2245-7070. <https://doi.org/10.37570/bgdsd-2022-70-08> (Q2)

Jiménez Hidalgo, E.; Guerrero Arenas, R.; **Crespo, V.D.** 2022. First galericine erinaceid (Mammalia:Eulipotyphla) from the early Oligocene of tropical North America. *Historical Biology*, 6p. <https://doi.org/10.1080/08912963.2022.2070018> (Q1)

Jolley, D.W., **Vieira, M.**, Jin, S., Kemp, D.B. 2022. Palynofloras, palaeoenvironmental change and the inception of the Paleocene Eocene Thermal Maximum; the record of the Forties Fan, Sele Formation, North Sea Basin *Journal of the Geological Society*. <https://doi.org/10.1144/jgs2021-131> (Q1)

Lains Amaral, J., Solá, A.R., Bento dos Santos, T.M., **Chichorro, M.**, 2022. Detrital zircon similarities and dissimilarities between the Iberian Pyrite Belt, Ossa-Morena Zone and Meguma. *Geologica Acta*, 20.16, 1-19, I-VIII. <https://doi.org/10.1344/GeologicaActa2022.20.16> (Q2)

Manzanares, E.; **Crespo, V.D.** Accepted. (Corresponding author) First reworked cretaceous batoid of the early Miocene from Spain. *Palaeobiodiversity and Palaeoenvironments*. <https://doi.org/10.1007/s12549-022-00564-w> (Q2)

Marquina Blasco, R.; Fagoaga, A.; **Crespo, V.D.**; Bailon, S.; Mallol, C.; Hernández, C.M.; Galván, B.; Blain, H.-A.; Ruiz-Sánchez, F.J. 2022. Applying the UDA-ODA discrimination technique to a herpetological association: the case of the Middle Paleolithic site of El Salt (Alcoi, Spain). *Archaeological and Anthropological Sciences*, 14 - 139, 1 - 25. <https://doi.org/10.1007/s12520-022-01604-4> (Q1)

Marquina-Blasco, R., Fagoaga, A., **Crespo, V.D.**, Martínez Ortí, A., Bailon, S., Sánchez-Marco, A., Gracia-Monferrer, D., De Santisteban, C. Ruiz-Sánchez, F.J. Accepted. Squamates, rodents, and birds from Holocene deposits of Illa Grossa Island (Columbretes Islands, Castellón, Spain): an unexpected diverse assemblage. *Comptes Rendus Palevol*. JCR (2021): 2.326. (Q1)

Martino, R., Ríos M. I., **Mateus O.**, & Pandolfi L. (2022). Taxonomy, chronology, and dispersal patterns of Western European Quaternary hippopotamuses: New insight from Portuguese fossil material. *Quaternary International* (*in press, online*) <https://doi.org/10.1016/j.quaint.2022.12.010> (Q1)

**Mateus, O.** & Estraviz-López, D. 2022. A new theropod dinosaur from the Early Cretaceous (Barremian) of Cabo Espichel, Portugal: implications for spinosaurid evolution. *PLoS One*, 17(2): e0262614. <https://doi.org/10.1371/journal.pone.0262614> (Q1)

**Mateus, O.**, Estraviz-López, D., Mateus, S. 2022. Type specimens alone have a strong correlation with taxa record by geological epoch: the case study of the fossil

vertebrates named from Portuguese types. *Comunicações Geológicas* (2022) 109, 1, 57-64. <https://doi.org/10.34637/z1t1-j459> (Q4)

Mennecart, B., Dziomber, L., Aiglstorfer, M., Bibi, F., Demiguel, D., Fujita, M., ... **Ríos, M.**, ...& Costeur, L. (2022). Ruminant inner ear shape records 35 million years of neutral evolution. *Nature communications*, 13(1), 1-11. (Q1)

**Moreno-Azanza, M.**, Balauz B., Ezquerro L., Coimbra R., **Mateus O.**, & Nuñez-Lahuerta C. 2022. Unbroken dinosaur eggs accumulated together do not guarantee autochthony of the fossil assemblage. *Journal of Taphonomy*. 16(1-4), 129-130. <https://journaltaphonomy.com/category/year-2022/volumen-16-issue-1-4-year-2022-year-2022>

**Moreno-Azanza, M.**, Pérez-Pueyo M., Puértolas-Pascual E., Núñez-Lahuerta C., **Mateus O.**, Bauluz B., Bádenas B., & Canudo J. I. 2022. A new crocodylomorph related ootaxon from the late Maastrichtian of the Southern Pyrenees (Huesca, Spain). *Historical Biology*. 1-10. <https://www.tandfonline.com/doi/abs/10.1080/08912963.2022.2098024> (Q1)

Niza, M., Rodrigues-dos Santos, A.S., Rebelo-Romão, I., Ferrer, M.V., **Sequero, C.**, Vilchez, J.I. (2022). Geographically disperse, cultivable seed-associated microbiota in forage plants of alfalfa (*Medicago sativa* L.) and pitch clover (*Bituminaria bituminosa* (L.) C.H.Stirt.): characterization of potential biotreatments based on beneficial inherited population. *Biology*, 11(12), 1838. (Q1)

Pereira, AM, Silva MM, **Mateus O.** 2022. First record of *Phymactis papillosa* (Lesson, 1830), a Pacific south sea anemone in European shores. *Journal of the Marine Biological Association of the United Kingdom*. :1–4. <https://doi.org/10.1017/S0025315422000571> (Q3)

Pessoa, C.C., Lidon, F.C., Coelho, A.R.F., Marques, A.C., Daccak, D., Luís, I.C., Caleiro, J.C., **Kullberg, J.C.**, **Legoinha, P.**, Brito, M.G., Ramalho, J.C., Silva, M.J., Rodrigues, A.P., Guerra, M., Leitão, R.G., Campos, P.S., Pais, I.P., Semedo, J.N., Silva, M.M., Galhano, C., Leal, N., Reboredo, F.H., Pessoa, M.F., Simões, M., 2022. Magnesium accumulation in two contrasting varieties of *Lycopersicon esculentum* L. fruits: Interaction with calcium at tissue level and implications on quality. *Plants*, 11, 1854. <https://doi.org/10.3390/plants11141854>. (Q1)

Pessoa, C.C., Lidon, F.C., Daccak, D., Luís, I.C., Marques, A.C., Coelho, A.R.F., **Legoinha, P.**, Ramalho, J.C., Leitão, A.E., Guerra, M., Leitão, R.G., Campos, P.S., Pais, I.P., Silva, M.M., Reboredo, F.H., Pessoa, M.F., Simões, M., 2022. Calcium biofortification of Rocha pear fruits: Implications on mineral elements, sugars and fatty acids accumulation in tissues. *Sci*, 4, 35. <https://doi.org/10.3390/sci4040035>.

**Puértolas-Pascual, E.**, Serrano-Martínez, A., Pérez-Pueyo, M., Bádenas, B. and Canudo, J.I., 2022. New data on the neuroanatomy of basal eusuchian crocodylomorphs (Allodaposuchidae) from the Upper Cretaceous of Spain. *Cretaceous Research*, 135, 105170. <https://doi.org/10.1016/j.cretres.2022.105170> (Q1)

**Ríos, M.**, Abbas, S.Y., Khan, M. A. and Solounias, N. 2022. Distinction of *Sivatherium* from *Libytherium* and a new species of *Libytherium* (Giraffidae, Ruminantia, Mammalia) from the Siwaliks of Pakistan (Miocene). *Geobios*, 74, 67-76. (Q2).

**Ríos, M.**, Cantero, E., Estraviz-López, D., Solounias, N., and Morales J. 2022. Anterior ossicone variability in *Decennatherium rex* Ríos, Sánchez and Morales, 2017 (late Miocene, Iberian Peninsula), *Earth and Environmental Science Transactions of the Royal Society of Edinburgh*, 2022, 1-7. (Q2)

Rotatori, F. M., **Moreno-Azanza M.**, & **Mateus O.** 2022. Reappraisal and new material of the holotype of *Draconyx loureiroi* (Ornithischia: Iguanodontia) provide insights on the tempo and modo of evolution of thumb-spiked dinosaurs. *Zoological Journal of the Linnean Society*. 2022; zlab113, <https://doi.org/10.1093/zoolinnean/zlab113> (Q1)

**Tschopp E.**, JG Napoli, LCM Wencker, M Delfino, P Upchurch. 2022. How to renderspecies comparable taxonomic units through deep time: a case study on intraspecific osteological variability in extant and extinct lacertid lizards. *Systematic Biology*, 71: 875-900. (Q1)

Seghetti SM, Georgalis GL, **Tschopp E.**, Delfino M. 2022. A historical overview of the reptile fauna from the Eocene Bolca Fossil-Lagerstätte (Italy). *Bollettino della Società Paleontologica Italiana*, 61:119-143. (Q1)

Solounias, N., Smith, S. & **Ríos , M. I.** (2022) *Ua pilbeami*: a new taxon of Giraffidae (Mammalia) from the Chinji Formation of Pakistan with phylogenetic proximity to *Okapia*. *Bollettino della Società Paleontologica Italiana*, 61 (3), 319-326. (Q1)

**Tschopp E.**, Whitlock JA, Woodruff DC, Foster JR, Lei R, Giovanardi S. 2022. The Morrison Formation Sauropod Consensus: A freely accessible online spreadsheet of collected sauropod specimens, their housing institutions, contents, references, localities, and other potentially useful information. *Peer Community Journal*, e17.

Vila, B., Sellés, A., **Moreno-Azanza, M.**, Razzolini, N. L., Gil-Delgado, A., Canudo, J. I., & Galobart, À. (2022). A titanosaurian sauropod with Gondwanan affinities in the

latest Cretaceous of Europe. *Nature ecology & evolution*, 6(3), 288-296.  
<https://doi.org/10.1038/s41559-021-01651-5> (Q1)

### **Proceedings**

Castanera, D., Parrilla, J., Medrano, E., Pérez-Pueyo, M., Aurell, M., Canudo, J.I., Galobart, À., **Puértolas-Pascual, E.** (2022) New vertebrate remains from the Jurassic-Cretaceous transition of the eastern Cameros basin (Spain). *19th Conference of the EAVP*, 27th June – 1st July 2022, Benevento, Italy, 34.

Coelho, A.R.F., Daccak, D., Luís, I.C., Marques, A.C., Pessoa, C.C., Silva, M.M., Simões, M., Reboredo, F.H., Pessoa, M.F., **Legoinha, P.**, Ramalho, J.C., Campos, P.S., Pais, I.P., Semedo, J.N., Lidon, F.C. (2022) Can Natural Fortification Increase Fe and Zn Content in Organically Grown Tomatoes? *Biol. Life Sci. Forum*, 16, 26. <https://doi.org/10.3390/IECHo2022-12504>

Coelho, A.R.F., Daccak, D., Marques, A.C., Luís, I.C., Pessoa, C.C., Silva, M.M., Simões, M., Reboredo, F.H., Pessoa, M.F., **Legoinha, P.**, Ramalho, J.C., Campos, P.S., Pais, I.P., Semedo, J.N., Lidon, F.C. (2022) Comparison of Soils of Two Fields for Potato Production Located in the Same Region of Portugal. *Chem. Proc.*, 10, 53. <https://doi.org/10.3390/IOCAG2022-12184>

Coelho, A.R.F., Luís, I.C., Marques, A.C., Pessoa, C.C., Daccak, D., Silva, M.M., Simões, M., Reboredo, F.H., Pessoa, M.F., **Legoinha, P.**, Galhano, C., Regato, M., Regato, J., Dias, J., Beja, N., Guerreiro, I., Ramalho, J.C., Campos, P.S., Pais, I.P., Semedo, J.N., Lidon, F.C. (2022) Mineral Interaction in Biofortified Tomatoes (*Lycopersicon esculentum* L.) with Magnesium. *Biol. Life Sci. Forum*, 16, 16. <https://doi.org/10.3390/IECHo2022-12509>

Coelho, A.R.F., Marques, A.C., Pessoa, C.C., Daccak, D., Luís, I.C., Silva, M.M., Simões, M., Reboredo, F.H., Pessoa, M.F., **Legoinha, P.**, Ramalho, J.C., Campos, P.S., Pais, I.P., Semedo, J.N., Lidon, F.C. (2022) Natural Enrichment of *Solanum tuberosum* L. with Calcium—Monitorization of Mineral Interactions in Plant Tissues. *Biol. Life Sci. Forum*, 11, 28. <https://doi.org/10.3390/IECPS2021-11972>

Coelho, A.R.F., Marques, A.C., Pessoa, C.C., Daccak, D., Luís, I.C., Silva, M.M., Simões, M., Reboredo, F.H., Pessoa, M.F., **Legoinha, P.**, Ramalho, J.C., Campos, P.S., Pais, I.P., Semedo, J.N., Lidon, F.C. (2022) Soil Characterization for Production of an Industrial Tomato Variety in South Portugal - A Case Study. *Chem. Proc.*, 10, 48. <https://doi.org/10.3390/IOCAG2022-12226>

Coelho, A.R.F., Pessoa, C.C., Daccak, D., Luís, I.C., Marques, A.C., Silva, M.M., Simões, M., Reboredo, F.H., Pessoa, M.F., **Legoinha, P.**, Ramalho, J.C., Campos, P.S., Pais, I.P., Semedo, J.N., Lidon, F.C. (2022) Selected Mineral Interactions in Two Varieties of *Lycopersicum esculentum* L. Produced Organically and Enriched Naturally with Fe and Zn. Biol. Life Sci. Forum, 11, 25. <https://doi.org/10.3390/IECPS2021-11935>

Coelho, A.R.F., Pessoa, C.C., Daccak, D., Luís, I.C., Marques, A.C., Silva, M.M., Simões, M., Reboredo, F.H., Pessoa, M.F., **Legoinha, P.**, Guerra, M., Leitão, R.G., Ramalho, J.C., Campos, P.S., Pais, I.P., Semedo, J.N., Lidon, F.C. (2022) Monitorization of Mineral Content and Location after 3 Months of Storage of Naturally Enriched Potato (*Solanum tuberosum* L.) with Calcium. Biol. Life Sci. Forum, 16, 14. <https://doi.org/10.3390/IECHo2022-12511>

Costa, Bruno; Silva, B.C; Darja, D; **Balbino, A.** (2022) - A Late Jurassic Ginglymodians and Pycnodontiformes from Torres Vedras, Portugal. PaleoPT - Encontro da Sociedade Portuguesa de Paleontologia (Out): Lourinhã, Portugal. Newsletter da SPdP Sociedade Portuguesa de Paleontologia: Vol. 1. SPdP Sociedade Portuguesa de Paleontologia. ISSN: 2975-8130. <http://hdl.handle.net/10174/32939>

Crispim, L., **Chichorro, M.**, Bento dos Santos, T., Linnemann, U., Hofmann, M., Neto de Carvalho, C., 2021. Geocronologia U-Pb em zircão de rochas metassedimentares e ígneas no sector Penha Garcia-Salvaterra do Extremo. Atas do XI Congresso Jovens Investigadores em Geociências - LEG 2021, Aljezur, 8-11.

Crispim, L., **Chichorro, M.**, Bento dos Santos, T., Linnemann, U., Hofmann, M., Neto de Carvalho, C., 2022. U-Pb zircon geochronology of metasedimentary and igneous rocks from Penha Garcia-Salvaterra do Extremo sector, Central Iberian Zone. Abstract book of the congress - Ossa Morena and beyond: a tribute to Teodoro Palacios, Badajoz, Extremadura, 9-10.

Daccak, D., Coelho, A.R.F., Pessoa, C.C., Luís, I.C., Marques, A.C., Ramalho, J.C., Campos, P.S., Pais, I.P., Semedo, J.N., Silva, M.M., **Legoinha, P.**, Simões, M., Reboredo, F.H., Pessoa, M.F., Lidon, F.C. (2022) Fertilization with ZnO and ZnSO<sub>4</sub>: Mineral Analyses in *Vitis vinifera* Grapes cv. Fernão Pires. Biol. Life Sci. Forum, 16, 11. <https://doi.org/10.3390/IECHo2022-12512>

Daccak, D., Marques, A.C., Coelho, A.R.F., Pessoa, C.C., Luís, I.C., Ramalho, J.C., Silva, M.J., Rodrigues, A.P., Campos, P.S., Pais, I.P., Semedo, J.N., Simões, M., Silva, M.M., **Kullberg, J.C.**, Brito, M.G., **Legoinha, P.**, Reboredo, F.H., Pessoa, M.F., Lidon, F.C. (2022) Influence of ZnO Fertilization of Grapes cv. Syrah on



Photosynthesis. Biol. Life Sci. Forum, 11, 71. <https://doi.org/10.3390/IECPS2021-11936>

Daccak, D., Pessoa, C.C., Luís, I.C., Marques, A.C., Coelho, A.R.F., Ramalho, J.C., Semedo, J.N., Guerra, M., Leitão, R.G., Campos, P.S., Pais, I.P., Silva, M.M., Reboredo, F.H., Simões, M., Pessoa, M.F., **Legoinha, P.**, Lidon, F.C. (2022) Zn Nutrition of *Vitis vinifera* White Grapes: Characterization of Antagonistic and Synergistic Interactions by  $\mu$ -EDXRF Tissue Analyses. Chem. Proc., 10, 47. <https://doi.org/10.3390/IOCAG2022-12317>

Estraviz López, D, **Mateus O.** 2022. Bearing the weight: Technical recovery of brown bear fossils (*Ursus arctos*) from Algar do Vale da Pena, Portugal. XX EJIP. Cañaverall de León. 91.

Guillaume, A.R.D., Moreno-Azanza, M., Mateus, O. (2022) New species of Albanerpetontidae (Lissamphibia) from the Lourinhã Formation. XXXVII Jornadas de Paleontología SEP V Congreso Ibérico de Paleontología - Cuenca, p. 94.

Lains Amaral, J., Solá, A. R., Bento dos Santos, T. **Chichorro, M.** (2022) A look at the 1.8-2.2 Ga zircon distribution as a paleogeographic and provenance indicator for peri-Gondwanan terranes. Geological Association of Canada-Mineralogical Association of Canada, Volume of Abstracts, v. 45, p. 1312

Luís, I.C., Daccak, D., Marques, A.C., Coelho, A.R.F., Pessoa, C.C., Patanita, M., Dôres, J., Almeida, A.S., Silva, M.M., Pessoa, M.F., Reboredo, F.H., Simões, M., **Legoinha, P.**, Bagulho, A.S., Moreira, J., Pais, I.P., Campos, P.S., Ramalho, J.C., Leitão, R.G., Guerra, M., Lidon, F.C. (2022) A Case Study on Minerals Accumulation in Grains and Flours of Bread Wheat Fertilized with ZnSO<sub>4</sub> and Tecnifol Zinc. Chem. Proc., 10, 91. <https://doi.org/10.3390/IOCAG2022-12291>

Luís, I.C., Marques, A.C., Coelho, A.R.F., Pessoa, C.C., Daccak, D., Patanita, M., Dôres, J., Almeida, A.S., Silva, M.M., Pessoa, M.F., Reboredo, F.H., Simões, M., **Legoinha, P.**, Pais, I.P., Campos, P.S., Ramalho, J.C., Lidon, F.C. (2022) Characterization of a *Triticum aestivum* L. Experimental Field to Implement an Agronomic Biofortification Workflow. Chem. Proc., 10, 33. <https://doi.org/10.3390/IOCAG2022-12304>

Luís, I.C., Pessoa, C.C., Daccak, D., Marques, A.C., Coelho, A.R.F., Patanita, M., Dôres, J., Almeida, A.S., Silva, M.M., Pessoa, M.F., Reboredo, F.H., Simões, M., **Legoinha, P.**, Galhano, C., Pais, I.P., Campos, P.S., Ramalho, J.C., Lidon, F.C. (2022) Mineral Quantification of *Triticum aestivum* L. Enriched in Zinc - Correlation between Minerals in Soils and Whole Wheat Flours. Biol. Life Sci. Forum, 11, 32. <https://doi.org/10.3390/IECPS2021-11952>

Marques, A.C., Coelho, A.R.F., Pessoa, C.C., Daccak, D., Luís, I.C., Almeida, A.S., Campos, P.S., Simões, M., Pessoa, M.F., Reboredo, F.H., Ramalho, J.C., Silva, M.M., Marques, P., **Legoinha, P.**, Pais, I.P., Oliveira, K., Lidon, F.C. (2022) Comparison between Varieties of Rice (*Oryza sativa* L.) Produced in Portugal- Mineral and Quality Analysis. Chem. Proc., 10, 46. <https://doi.org/10.3390/IOCAG2022-12185>

Marques, A.C., Daccak, D., Luís, I.C., Coelho, A.R.F., Pessoa, C.C., Campos, P.S., Simões, M., Almeida, A.S., Pessoa, M.F., Reboredo, F.H., Galhano, C., Ramalho, J.C., Palha, L., Silva, M.M., **Legoinha, P.**, Oliveira, K., Pais, I.P., Lidon, F.C. (2022) A Case Study on Minerals Interaction in the Soil and Se Enrichment in Rice (*Oryza sativa* L.). Biol. Life Sci. Forum, 11, 24. <https://doi.org/10.3390/IECPS2021-11953>

Marques, A.C., Luís, I.C., Coelho, A.R.F., Pessoa, C.C., Daccak, D., Simões, M., Almeida, A.S., Campos, P.S., Ramalho, J.C., Semedo, J.M.N., **Kullberg, J.C.**, Brito, M.G., Pessoa, M.F., Reboredo, F.H., Marques, P., Silva, M.M., **Legoinha, P.**, Oliveira, K., Pais, I.P., Lidon, F.C. (2022) Monitorization through NDVI of a Rice (*Oryza sativa* L.) Culture Production in Ribatejo Region. Chem. Proc., 10, 3. <https://doi.org/10.3390/IOCAG2022-12170>

Martínez de Espronceda, P., Rodríguez-Barreiro, I., Pérez-Pueyo, M., Bádenas, B., Canudo, J.I., **Puértolas-Pascual, E.**, Sender L.M., Díez, J.B. (2022) One of the last dinosaur-bearing sites before the K/Pg boundary (Veracruz, NE Spain): a palynostratigraphical and paleoecological approach. *Libro de Resúmenes de las IX Jornadas Internacionales sobre Paleontología de Dinosaurios y su entorno*. Salas de los Infantes (Burgos), España, 8-10 de Septiembre, 2022, 103-106.

Martino, R., **Ríos-Ibañez, M.**, Rook, L., Mateus, O., Pandolfi, L. (2022) New insights into the hippopotamid (Mammalia, Hippopotamidae) from the Casino Basin (Tuscany, Italy). 19th Conference of the EAVP, 27th June – 1st July 2022, Benevento, Italy, 119.

**Moreno-Azanza, M.**, Pérez-Pueyo, M., Puértolas-Pascual, E., Nuñez-Lahuerta, C., **Mateus, O.**, Bauluz, B., Bádenas, B., Canudo, J.I.. (2022) Cáscaras de huevo de los últimos cocodrilomorfos del Cretácico (Huesca, España). XXXVII Jornadas de Paleontología SEP V Congreso Ibérico de Paleontología - Cuenca, p. 119.

Parrilla-Bel, J., Medrano-Aguado, E., **Puértolas-Pascual, E.**, Canudo, J.I. (2022) Crocodylomorph diversity in Barranco del Hocino-1 site (Barremian, Lower Cretaceous) in Estercuel (Teruel, Spain). *Libro de Resúmenes de las IX Jornadas Internacionales sobre Paleontología*

*ía de Dinosaurios y su entorno*. Salas de los Infantes (Burgos), España, 8-10 de Septiembre, 2022, 115-118.

Pérez-Pueyo, M., Medrano-Aguado, E., Gasca, J.M., **Puértolas-Pascual, E.**, Bádenas, B., Canudo, J.I. (2022) ¿Qué hace un hueso cómo tú en una facies como ésta? Una primera aproximación a los modos tafonómicos de los yacimientos de vertebrados del Maastrichtiense del Pirineo aragonés. In: Sanguino, F., Ozkaya de Juanas, S., Romero, S., Simarro, Á. and García-Zamora, E. (eds.) 20 años de encuentros. Libro de resúmenes del XX Encuentro de Jóvenes Investigadores en Paleontología en Cañaverale de León, Huelva, 19-22 de abril de 2022, 70.

Pessoa, C.C., Coelho, A.R.F., Daccak, D., Luís, I.C., Marques, A.C., Ramalho, J.C., Campos, P.S., Silva, M.M., **Legoinha, P.**, Reboredo, F.H., Pessoa, M.F., Simões, M., Lidon, F.C. (2022) Orchard's Soil Characterization and Nutrient Mobilization to Rocha Pear (*Pyrus communis* L.) Fruits. *Chem. Proc.*, 10, 43. <https://doi.org/10.3390/IOCAG2022-12183>

Pessoa, C.C., Luís, I.C., Marques, A.C., Coelho, A.R.F., Daccak, D., Ramalho, J.C., Silva, M.J., Rodrigues, A.P., Campos, P.S., Pais, I.P., Semedo, J.N., Silva, M.M., **Kullberg, J.C.**, Brito, M.G., **Legoinha, P.**, Pessoa, M.F., Simões, M., Reboredo, F.H., Lidon, F.C. (2022) Physiological Assessment of Rocha Pear Trees to Agronomic Enrichment with  $\text{CaCl}_2$  and  $\text{Ca}(\text{NO}_3)_2$ . *Biol. Life Sci. Forum*, 11, 14. <https://doi.org/10.3390/IECPS2021-11999>

Pessoa, C.C., Marques, A.C., Coelho, A.R.F., Daccak, D., Luís, I.C., Ramalho, J.C., Campos, P.S., Pais, I.P., Semedo, J.N., Silva, M.M., **Legoinha, P.**, Reboredo, F.H., Simões, M., Pessoa, M.F., Lidon, F.C. (2022) Assessment of Calcium Content in Pear Fruits under Storage after  $\text{CaCl}_2$  Applications during Pre- and Post-Harvest Phases. *Biol. Life Sci. Forum*, 16, 9. <https://doi.org/10.3390/IECHo2022-12481>

**Puértolas-Pascual, E.**, Canudo, J.I., Aurell, M., Galobart, A., **Moreno-Azanza, M.**, Castanera, D. (2022) New fossil assemblage with crocodylomorphs and other vertebrates around the Jurassic-Cretaceous transition of the Cameros basin (Soria, Spain). *Libro de Resúmenes de las IX Jornadas Internacionales sobre Paleontología de Dinosaurios y su entorno*. Salas de los Infantes (Burgos), España, 8-10 de Septiembre, 2022, 125-128.

**Puértolas-Pascual, E.**, Serrano-Martínez, A., Kuzmin, I.T., **Mateus, O.** (2022) Paleoneuroanatomy of the Cenomanian crocodylomorph, *Portugalosuchus*. *19th Conference of the EAVP*, 27th June – 1st July 2022, Benevento, Italy, 161-162.

**Ríos, M**, Estraviz-López D, Martino R, Lohmann P, **Mateus O**, Solounias N. (2022) The first Sivatheriine (Artiodactyla, Giraffidae) from the Middle Miocene of Portugal. 19th Conference of the EAVP, 27th June – 1st July 2022, Benevento, Italy, 167.

Rodríguez-Gómez E., Ferré B., Callapez P.M., **Balbino A.**, **Legoinha P.**, Granier B. & Marino G. Occurrence of roveacrinoidal assemblages (Roveacrinida, Crinoidea) in the Upper Cretaceous carbonate microfacies of Portugal. In: Moncunill-Solé B, Carrillo-Barral N. & Blanco A (eds.). *Paleontological Research Lines in the Northwest of Iberian Peninsula*. A Coruña, Spain, pp. 31. **ISBN**: 978-84-09-46113-4. Depósito Legal: C 1878-2022. <http://hdl.handle.net/10174/32866>

Rodríguez-Gómez E., Ferré B., Callapez P.M., **Balbino A.**, **Legoinha P.**, Granier B. & Marino G. New data on the carbonate microfacies from the upper Cenomanian of the Baixo Mondego region (Beira Litoral, Portugal. In: Moncunill-Solé B, Carrillo-Barral N. & Blanco A (eds.). *Paleontological Research Lines in the Northwest of Iberian Peninsula*. A Coruña, Spain, pp. 30. **ISBN**: 978-84-09-46113-4. <http://hdl.handle.net/10174/32837>

Ruíz-Pedraza, P.F., Estraviz-López D., **Ríos, M.** (2022) 3D Life reconstruction of the intraspecific variability in the fossil giraffid *Decennatherium rex* RÍOS, SÁNCHEZ AND MORALES 2017 (Late Miocene, Iberian Peninsula). 19th Conference of the EAVP, 27th June – 1st July 2022, Benevento, Italy, 172.

Saleiro, A., Guillaume, A.R.D., Rotatori, F.M., **Ríos-Ibañez, M.**, Estraviz-López, D., Conti, S., Martino, R., **Puértolas-Pascual, E.**, **Mateus, O.**, **Moreno-Azanza, M.** (2022) A beta taxonomy approach to Late Jurassic and Early Cretaceous dinosaur assemblages. *19th Conference of the EAVP*, 27th June – 1st July 2022, Benevento, Italy, 176-177.

Silva, Roberto; **Balbino, A.**; Silva, Bruno; Costa, Mafalda; Barrulas, Pedro; Ribeiro, C. (2022) - A potencialidade da Geoquímica para o estudo da Paleontologia de Vertebrados. *PaleoPT - Encontro da Sociedade Portuguesa de Paleontologia (Out)*: Lourinhã, Portugal. Vol. 1. SPdP Sociedade Portuguesa de Paleontologia. ISSN: 2975-8130.

Torcida Fernández-Baldor, F., Huerta, P., **Puértolas-Pascual, E.**, Canudo, J.I. (2022) New teeth of a basal Macronaria (Sauropoda) from the Jurassic-Cretaceous transition of Spain. *Libro de Resúmenes de las IX Jornadas Internacionales sobre Paleontología de Dinosaurios y su entorno*. Salas de los Infantes (Burgos), España, 8-10 de Septiembre, 2022, 155-158.

### **Book chapter (2022)**

Fernández, M. S., Vila, B., & **Moreno-Azanza, M.** (2022). Eggs, Nests, and Reproductive Biology of Sauropodomorph Dinosaurs from South America. *South American Sauropodomorph Dinosaurs*, 393-441. [https://doi.org/10.1007/978-3-030-95959-3\\_11](https://doi.org/10.1007/978-3-030-95959-3_11)

Tschopp E. 2022. Avemetatarsalia and the origin of Dinosauria. In Pough FH, Bemis WE, McGuire B, Janis CM (eds), *Vertebrate Life*: 397-420. Oxford University Press, New York, USA.

Tschopp E. 2022. Theropods and the origin of Birds. In Pough FH, Bemis WE, McGuire B, Janis CM (eds), *Vertebrate Life*: 421-442. Oxford University Press, New York, USA.

### **Financed Project (2022)**

PTDC/CTA-PAL/2217/2021. [início em 2022] *Modeling the role of Iberia in the Mesozoic tetrapod paleobiogeography*. Fundação para a Ciência e Tecnologia (FCT). 249.478,5 € (IP **Miguel Moreno-Azanza**, ColP, **José Kullberg**)

REACT-EU\_Intervenções de Resiliência dos Territórios face ao risco - Combate à desertificação através da rearborização e de ações que promovam o aumento da fixação de carbono e de nutrientes no solo. Programa Operacional COMPETE 2020, 2021-REACT-13; Beneficiário: ANSUB - Associação de Produtores Florestais do Vale do Sado. Financiamento total: 977.780,32 € (**Paulo Legoinha**)

ICNF: POSEUR-03-2215-FC-000147 *Projeto de conservação de habitats naturais e de valorização da Paisagem Protegida da Arriba Fóssil da Costa da Caparica*. Financiamento: 31.781,34 € (Collaboration: **Paulo Legoinha**, **José Kullberg**)

### **Supervision (concluded in 2022)**

- **Master Dissertation**

Bruno L. P., Costa (2022). Fishes from the Upper Jurassic of Torres Vedras, Portugal. Mestrado em Paleontologia. *Universidade de Évora, Escola de Ciências e Tecnologia*, 54 p. (**Ausenda Balbino**)

Carlos Garay Gonzales de Mendivil (2022) Dientes mudados de ornitópodos del yacimiento de La Cantalera (Barremiense, Josa), Universidad de Zaragoza, 40 p. (**Miguel Moreno-Azanza**)

Luís CG Santos (2022) - Foraminíferos miocénicos de Porto Santo (Madeira, Portugal). *Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa*, 91 p. (**Paulo Legoinha**)

René Dederichs (2022) - A juvenile diplodocoid skeleton from the Morrison Formation (Upper Jurassic) of Kaycee (Wyoming) and its systematic affinities. *University of Bonn, Germany*, 75 p. (**Emanuel Tschopp**)

Roberto P. Silva (2022) - A Importância dos Métodos Geoquímicos no Estudo da Paleontologia de Vertebrados. *Universidade de Évora, Escola de Ciências e Tecnologia*, 54 p. (**Ausenda Balbino**)

- **PhD thesis**

Pedro Fialho - Chondrichthyes fósseis de Brielas (Langhian, Portugal). Tese de Doutoramento, *Universidade de Évora*, 260 p. (**Ausenda Balbino**)

28.jan.2023  
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