

GeoBioTec BSP Research group

# Sedimentary Basins and Paleontology Bacias Sedimentares e Paleontologia

GeoBioTec BSP report 2020

[Members and collaborators](#)

[50 Publications by the GeoBioTec-BSP team in 2020](#)

[43 Projects by GeoBioTec-BSP Team in 2020](#)

[5 Technical / scientific potential](#)

## Members and collaborators

### Members

Ausenda Cáceres B albino  
Eduardo Puértolas Pascual  
José Carlos Kullberg  
Ligia Nunes de Sousa Castro  
Martim Chichorro  
Miguel Moreno Azanza  
Octávio Mateus Paulo  
Legoinha  
Carmen Nuñez-Lahuerta  
Lope Ezquerro Ruiz  
María Ríos Ibáñez

### Collaborators

Alexandre Renaud Daniel Guillaume  
Alexandre Daniel Vila Verde dos Santos  
Bruno Miguel Claro Pereira  
Carlos Alberto Rodrigues Alves Natário  
Darío Estraviz Lopez  
Emanuel David Tschopp  
Filippo Maria Rotatori  
Francisco João da Costa Pinto  
João Paulo Vasconcelos Mendes Russo  
Manuel Vieira  
Pedro Miguel Callapez Tonicher  
Pedro Alexandre Pereira Correia  
Pedro Manuel Simões Rosa Fialho  
Ricardo Jorge Henriques Pimentel  
Rúben Samuel da Silva Domingos  
Simão Gustavo Madeira Mateus  
Simone Conti

50 Publications by the GeoBioTec-BSP team in 2020

- Atkin, D., **Vieira, M.**, & Taylor, B. (2020). Applications of real-time chemical stratigraphy in support of the safe drilling of HPHT wells: examples from the Shearwater Field, Central North Sea, UK. *Petroleum Geoscience*.
- Blanco, A., **Puértolas-Pascual, E.**, Marmi, J., Moncunill-Solé, B., Llácer, S., & Rössner, G. E. (2020). Late Cretaceous (Maastrichtian) crocodyliforms from north-eastern Iberia: a first attempt to explain the crocodyliform diversity based on tooth qualitative traits. *Zoological Journal of the Linnean Society*, 189(2), 584-617.
- Brandão, J. M., & **Callapez, P. M.** (2020). Engineering, Geology and the Water Supply to Lisbon in the Second Half of the Nineteenth Century. Expertise and Innovation. In *The History of Water Management in the Iberian Peninsula* (pp. 111-136). Birkhäuser, Cham.
- Casas-Gallego, M., Gogin, I., & **Vieira, M.** (2020). Two new dinoflagellate cyst species and their biostratigraphical application in the Eocene and Oligocene of the North Sea. *Palynology*, 1-13.
- Choi, S., **Moreno-Azanza, M.**, Csiki-Sava, Z., Prondvai, E., & Lee, Y. N. (2020). Comparative crystallography suggests maniraptoran theropod affinities for latest Cretaceous European 'geckoid' eggshell. *Papers in Palaeontology*, 6 (2), 265-292.
- Clemmensen, L. B., Kent, D. V., Mau, M., **Mateus, O.**, & Milàn, J. (2020). Triassic lithostratigraphy of the Jameson Land Basin (central East Greenland), with emphasis on the new Fleming Fjord Group. *Bulletin of the Geological Society of Denmark*, 68.
- Correia, P.**, & Murphy, J. B. (2020). Iberian-Appalachian connection is the missing link between Gondwana and Laurasia that confirms a Wegenerian Pangaea configuration. *Scientific Reports*, 10(1), 1-7.
- Correia, P.**, Bashforth, A. R., Šimůnek, Z., Cleal, C. J., Sá, A. A., & Labandeira, C. C. (2020). The history of herbivory on sphenophytes: a new calamitalean with an insect gall from the Upper Pennsylvanian of Portugal and a review of arthropod herbivory on an ancient lineage. *International Journal of Plant Sciences*, 181(4), 387-418.
- Dinis, P. A., Carvalho, J., **Callapez, P. M.**, Mendes, M. M., Santos, V. F., & Fernandes, P. (2020). Composition of Lower Cretaceous mudstones of the Algarve Basin and implications for Iberian palaeoclimates. *Cretaceous Research*, 110, 104404.
- Domingos, R.**, Correia, P., Pinto de Jesus, A., **Legoinha, P.**, **Callapez, P.** (2020) - First occurrence of *Tiaracrinus* (Crinoidea, Zophocrinidae) in the Devonian of Iberia: biostratigraphic, palaeoecological and palaeogeographic implications. *Geological Journal* (Wiley).  
<https://onlinelibrary.wiley.com/doi/full/10.1002/gj.3760>
- Eldrett, J. S., **Vieira, M.**, Gallagher, L., Hampton, M., Blaauw, M., & Swart, P. K. (2020). Late Cretaceous to Palaeogene carbon isotope, calcareous nannofossil and foraminifera stratigraphy of the Chalk Group, Central North Sea. *Marine and Petroleum Geology*, 124, 104789.
- Ezquerro, L.**, Simón, J. L., Luzón, A., & Liesa, C. L. (2020). Segmentation and increasing activity in the Neogene-Quaternary Teruel Basin rift (Spain) revealed by morphotectonic approach. *Journal of Structural Geology*, 104043.
- Fialho, P. R.**, **Balbino, A. C.**, **Legoinha, P.**, & Antunes, M. T. (2021). Shark fossil diversity (Squalomorphii, Squatinomorphii, and Galeomorphii) from the Langhian of Brielas (Lower Tagus Basin, Portugal). *Geological Journal*, 56(1), 405-421. <http://dx.doi.org/10.1002/gj.3965>
- Fuenlabrada, J.M., Arenas, R., Martínez, S.S., Fernández, R.D., Pieren, A.P., Pereira, M.F., **Chichorro, M.** and Silva, J.B., 2020. Geochemical and isotopic (SmNd) provenance of Ediacaran-Cambrian metasedimentary series from the Iberian Massif. Paleoreconstruction of the North Gondwana margin. *Earth-Science Reviews*, 201, p.103079.
- Gómez-Olivencia, A., Arlegi, M., Arceredillo, D., Delson, E., Sanchis, A., **Núñez-Lahuerta, C.**, ... & van der Made, J. (2020). The Koskobilo (Olazti, Navarre, Northern Iberian Peninsula) paleontological collection: New insights for the Middle and Late Pleistocene in Western Pyrenees. *Quaternary International*, 566, 113-140.
- González-Delgado, J.Á., Martínez-Graña, A., Holgado, M., Gonzalo, J.C., **Legoinha, P.** (2020) - Augmented Reality as a Tool for Promoting the Tourist Value of the Geological Heritage Around Natural Filming Locations: a Case Study in "Sad Hill" (The Good, the Bad and the Ugly Movie, Burgos, Spain). *Geoheritage* 12, 34. <https://doi.org/10.1007/s12371-020-00457-4>

- Guillaume, A. R., Moreno-Azanza, M., Puértolas-Pascual, E., & Mateus, O.** (2020). Palaeobiodiversity of crocodylomorphs from the Lourinhã Formation based on the tooth record: insights into the palaeoecology of the Late Jurassic of Portugal. *Zoological Journal of the Linnean Society*, 189(2), 549-583.
- Hendrickx, C., **Tschopp, E.**, & Ezcurra, M. (2020). Taxonomic identification of isolated theropod teeth: The case of the shed tooth crown associated with Aerosteon (Theropoda: Megaraptora) and the dentition of Abelisauridae. *Cretaceous Research*, 108, 104312.
- Jackson, Y. J., Economos, R. C., Jacobs, L., **Mateus, O.**, & Gonçalves, A. O. (2020, March). When dinosaurs walked through diamonds: constraining the age of early cretaceous footprints in volcanic crater sediments. In *Geological Society of America Abstracts with Programs* (Vol. 52, No. 1).
- Jacobs, L. L., Sousa, N., Gonçalves, A. O., **Mateus, O.**, Polcyn, M. J., & Schulp, A. S. (2020, December). Projecto PaleAngola: Geoheritage and Conservation Paleobiology as Science for Development in Angola. In *AGU Fall Meeting 2020*. AGU.
- Kullberg, M. C., & **Kullberg, J. C.** (2020). Landforms and Geology of the Serra de Sintra and Its Surroundings. In *Landscapes and Landforms of Portugal* (pp. 251-264). Springer, Cham.
- Marques AC, Lidon FC, Coelho ARF, Pessoa C C, Luís IC, Scotti-Campos P, Simões M, Almeida AS, **Legoinha P**, Pessoa MF, Galhano C, Guerra MAM, Leitão RG, Ramalho JC, Semedo JMN, Bagulho A, Moreira J, Rodrigues AP, Marques P, Silva C, Ribeiro-Barros A, Silva MJ, Silva MM, Oliveira K, Ferreira D, Pais IP, Reboredo FH. Quantification and Tissue Localization of Selenium in Rice (*Oryza sativa* L., Poaceae) Grains: A Perspective of Agronomic Biofortification. *Plants*. 2020; 9(12):1670; <https://doi.org/10.3390/plants9121670>
- Martinetto, E., **Tschopp, E.**, & Gastaldo, R. A. (Eds.). (2020). *Nature through Time: Virtual field trips through the Nature of the past*. Springer Nature.
- Martinetto, E., & **Vieira, M.** (2020). New Pliocene records of plant fossil-taxa from NW Portugal and their relevance for the assessment of diversity loss patterns in the late Cenozoic of Europe. *Review of Palaeobotany and Palynology*, 281, 104286.
- Mateus, Simão** (2020). Fósseis: que património? In Alice Duarte (ed.), *Seminários DEP/FLUP vol. 1*. Porto: Universidade do Porto, Faculdade de Letras/DCTP, p. 141-167.  
<https://doi.org/10.21747/9789898969682/seminariosv1a7>
- Pérez-Pueyo, M., **Puértolas-Pascual, E.**, **Moreno-Azanza, M.**, Cruzado-Caballero, P., Gasca, J. M., & Canudo, J. I., (in press). First record of a giant bird (Ornithomorpha) from the uppermost Maastrichtian of the southern Pyrenees, NE Spain. *Journal of Vertebrate Paleontology*,
- Pessoa, C.C., Lidon, F. C., Coelho, A.R.F., Caleiro, J.C., Marques, A. C., Luís, I.C., **Kullberg, J.C.**, **Legoinha, P.**, da Graça Brito, M., Ramalho, J. C. and Guerra, M.A., 2020 Calcium biofortification of Rocha pears, tissues accumulation and physicochemical implications in fresh and heat-treated fruits. *Scientia Horticulturae*, 277, p.109834.
- Park, J.Y., Lee, Y.N., Currie, P.J., Kobayashi, Y., Koppelhus, E., Barsbold, R., **Mateus, O.**, Lee, S. and Kim, S.H., 2020. Additional skulls of *Talarurus plicatospineus* (Dinosauria: Ankylosauridae) and implications for paleobiogeography and paleoecology of armored dinosaurs. *Cretaceous Research*, 108, p.104340.
- Puértolas-Pascual, E., & Mateus, O.** (2020). A three-dimensional skeleton of Goniopholididae from the Late Jurassic of Portugal: implications for the Crocodylomorpha bracing system. *Zoological Journal of the Linnean Society*, 189(2), 521-548.
- Puértolas-Pascual, E.**, Young, M. T., & Brochu, C. A. (2020). Introducing the First European Symposium on the Evolution of Crocodylomorpha. *Zoological Journal of the Linnean Society*, 189 (2), 419-427
- Puértolas-Pascual, E.**, Marx, M., **Mateus, O.**, Saleiro, A., Fernandes, A. E., Marinheiro, J., Tomás, C., & **Mateus, S.** (in press). A new plesiosaur from the Lower Jurassic of Portugal and the early radiation of Plesiosauroidea. *Acta Palaeontologica Polonica*,
- Rasilla, M. de La, DM., Duarte, E., Sanchis, A., Carrión, Y., Cañaveras, J.C., Marín-Arroyo, A.B., Real, C., **Núñez-Lahuerta, C.**, Sánchez-Moral, S., Gutiérrez-Zugasti, I. and Jones, J.R., (2020). Environment and subsistence strategies at La Viña rock shelter and Llonin cave (Asturias, Spain) during MIS3. *Journal of Archaeological Science: Reports*, 30, 102198.

- Rio, J. P., Mannion, P. D., **Tschopp, E.**, Martin, J. E., & Delfino, M. (2020). Reappraisal of the morphology and phylogenetic relationships of the alligatoroid crocodylian *Diplocynodon hantoniensis* from the late Eocene of the United Kingdom. *Zoological Journal of the Linnean Society*, 188(2), 579-629.
- Rocha, R. B., **Kullberg, J. C.**, & Caetano, P. S. O topónimo Lisboa na Paleontologia portuguesa. *Comunicações Geológicas* (2020) 107, Especial I, 49-51
- Rotatori, F. M., Moreno-Azanza, M., & Mateus, O.** (2020). New information on ornithomimid dinosaurs from the Late Jurassic of Portugal. *Acta Palaeontologica Polonica*, 65(1), 35-57.
- Seghetti, S. M., Villa, A., **Tschopp, E.**, Bernardini, F., Laddaga, L., Fanelli, M., ... & Delfino, M. (2020). Skull osteology of *Vipera walser* (Squamata, Viperidae): Description, variability, ontogeny, and diagnostic characters in comparison to other Italian vipers. *Journal of Morphology*.
- Simón-Porcar, G., Martínez-Graña, A., Simón, J.L., González-Delgado, J.A., **Legoinha, P.** (2020) - Ordovician Ichnofossils and Popular Architecture in Monsagro (Salamanca, Spain): Ethnopaleontology in the Service of Rural Development. *Geoheritage* 12: 76.  
<https://doi.org/10.1007/s12371-020-00506-y>
- Talento, K., Amado, M., & **Kullberg, J. C.** (2020). Quarries: From Abandoned to Renewed Places. *Land*, 9(5), 136.
- Talento, K., Amado, M., & **Kullberg, J. C.** (2020). The Reuse of Waste Heaps from Extraction Sites: An Architectural Methodology. *Sustainability*, 12(16), 6548.
- Talento, K., Amado, M., & **Kullberg, J. C.** (2020). The reuse of marble waste heaps in the estremoal anticlinal. "Identidades: território, cultura, património", 2020, núm. 9
- Tschopp, E.** (2020). Paleontology: The Smallest of the Giants. *Current Biology*, 30(24), R1496-R1499.
- Tschopp, E.**, Mehling, C., & Norell, M. A. (2020). Reconstructing the Specimens and History of Howe Quarry (Upper Jurassic Morrison Formation; Wyoming). *American Museum Novitates*, 2020(3956), 1-56.
- Tschopp, E.**, Araújo, R., Brusatte, S. L., Hendrickx, C., Macaluso, L., Maidment, S. C., ... & Williamson, T. (2020). Dinosaurs, But Not Only: Vertebrate Evolution in the Mesozoic. In *Nature through Time* (pp. 187-208). Springer, Cham.
- Tschopp, E.**, Barta, D. E., Brinkmann, W., Foster, J. R., Holwerda, F. M., Maidment, S. C., ... & Zahner, M. (2020). How to live with dinosaurs: Ecosystems across the Mesozoic. In *Nature through Time* (pp. 209-229). Springer, Cham.
- Vieira, M.**, & Mahdi, S. (2020). *Desmocysta hadra*, a new Late Cretaceous dinoflagellate cyst species: stratigraphic range, palaeogeographic distribution and palaeoecology. *Journal of Micropalaeontology*, 39(2), 155-167.
- Vieira, M.**, & Jolley, D. (2020). Stratigraphic and spatial distribution of palynomorphs in deep-water turbidites: a meta-data study from the UK Central North Sea Paleogene. *Marine and Petroleum Geology*, 122, 104638.
- Vieira, M.**, & Zetter, R. (2020). Pollen record of megathermal and mesothermal elements in the late Pliocene from west Portugal revealed by combined light and scanning electron microscopy studies. *Grana*, 59(1), 114-126.
- Vieira, M.**, Mahdi, S., & Holmes, N. (2020). High resolution biostratigraphic zonation for the UK central North Sea Paleocene. *Marine and Petroleum Geology*, 104400.
- Vieira, M.**, Mahdi, S., & Alderson, A. (2020). New Selandian species of *Glaphyrocysta* and *Spinidinium* from offshore Northwest Europe. *Review of Palaeobotany and Palynology*, 275, 104170.
- Zilhão, J., Angelucci, D. E., Araújo Igreja, M., Arnold, L. J., Badal, E., **Callapez, P.**, Cardoso, J. L., d'Errico, F., Daura, J., Demuro, M., Deschamps, M., Dupont, C., Gabriel, S., Hoffmann, D. L., **Legoinha, P.**, Matias, H., Monge Soares, A. M., Nabais, M., Portela, P., Queffelec, A., Rodrigues, F., Souto, P. (2020) - Last Interglacial Iberian Neandertals as fisher-hunter-gatherers. *Science*. Vol. 367, March 27, 2020. p. 1443. <http://dx.doi.org/10.1126/science.aaz7943>



## 43 Projects by GeoBioTec-BSP Team in 2020

See details at <https://sites.fct.unl.pt/geobiotec/pages/sedimentary-basins-and-palaeontology-projects>

<b>Funding agency</b>	<b>Project name</b>	<b>BSP Members and collaborators involved</b>
Fundação para a Ciência e Tecnologia.	GeoBioTec-GeoBioSciences, GeoTechnologies and GeoEngineering NOVA [GeoBioCiências, GeoTecnologias e GeoEngenharias]	all members
Fundação para a Ciência e Tecnologia	Xtaleggs: Aplicando análise microtextural e geoquímica para explorar a filogenia e adaptação funcional em cascas de o vos de arcosaurios	Miguel Moreno Azanza, Eduardo Puértolas Pascual, Octávio Mateus, Carmen Nuñez-Lahuerta, Lope Ezquerro Ruiz
Ministerio de Ciencia, Innovación, España	Entre transiciones en el Último Máximo Glacial. Cambios culturales y su interconexión con los procesos ambientales y tafonómicos en el occidente cantábrico.	Carmen Núñez-Lahuerta
Ministerio de Ciencia, Innovación, España	Geología, geocronología y paleobiología de los yacimientos de la Sierra de Atapuerca VII.	Carmen Núñez-Lahuerta
Ministerio de Ciencia, Innovación, España	Ambientes marinos someros a continentales con registro de vertebrados del Jurásico Superior-Eoceno.	Miguel Moreno-Azanza, Eduardo Puértolas
Dirección General de Aragón	Aragosaurus: Recursos Geológicos Y Paleoambientes.	Miguel Moreno-Azanza, Eduardo Puértolas Pascual, Carmen Nuñez Lahuerta
Ministerio de Economía, Industria y Competitividad (Governo da Espanha)	Ambientes marinos someros a continentales con registro de vertebrados del jurasico superior - eoceno	Eduardo Puértolas Pascual, Dr. Miguel Moreno Azanza.
EIT Raw Materials	TravelEx: Underground resources travelling exhibition.	J.C.Kullberg
EIT Raw Materials	raPHOSafe – Classification and Sorting of Radium-rich Phosphogypsum Tailings	J.C.Kullberg
Programa Interreg Europe	Remix – Smart and Green Mining Regions of EU.	J.C.Kullberg
Programa H2020	MIREU - Mining and Metallurgy Regions of EU.	J.C.Kullberg



Programa H2021	e-Through – Thinking rough towards sustainability	J.C.Kullberg
American Museum of Natural History	Dinossauros de Ten Sleep, Wyoming.	Octávio Mateus. Emanuel Tschopp.
Museu da Lourinhã	MiCrocs: Ressuscitando crocodilos anões do Jurássico de Portugal.	Eduardo Puértolas Pascual, Octávio Mateus, Miguel Moreno Azanza e Alexandre Guillaume.
Museu da Lourinhã	Jura-PT guia de fósseis do Jurássico Superior da Formação da Lourinhã.	Octávio Mateus. Miguel Moreno-Azanza, Eduardo Puértolas-Pascual, João Russo, Carlos Natário, Pedro Callapez, Bruno Pereira
Museu da Lourinhã	Vertebrados do Jurássico Superior de Portugal.	Octávio Mateus, Miguel Moreno Azanza, Eduardo Puértolas, Carmen Nuñez Lahuerta, Lope Ezquerro
Museu da Lourinhã	Ptero-Portugal	Octávio Mateus
Museu da Lourinhã	DragonClaw	Octávio Mateus. Miguel Moreno-Azanza,
Museu da Lourinhã	Louri-Qave	Darío Estraviz Lopez, Octávio Mateus
DinoParque da Lourinhã	Bary-PT - The theropod Baryonyx from Portugal: excavations, comparisons, museology and paleobiology	Octávio Mateus, Darío Estraviz Lopez, Miguel Moreno-Azanza, Eduardo Puértolas-Pascual
DinoParque da Lourinhã	Exposição e montagem em postura de vida d o estegossauro de Atouguia da Baleia (Miragaia longicollum) no Museu Geológico de Lisboa	Francisco Costa Pinto, Octávio Mateus
DinoParque da Lourinhã	MicroSaurus: Collecting microvertebrates of the Jurassic of Portugal: a citizen science project	Miguel Moreno-Azanza,, Octávio Mateus, Alexandre Guillaume.
Financiamento Privado	Análise da estabilidade de talude antrópica	J .C. Kullberg, Ana Paula Silva, Alexandre Santos
Fundação para a Ciência e Tecnologia	The rise and fall of giraffes: macroevolutionary analysis of an endangered lineage	María Ríos Ibáñez
PDR2020 – Operação 1.0.1.	GO – Calcium fortification of Rocha p ears.	José Kullberg, Paulo Legoinha



PDR2020 – Operação 1.0.1.	GO – Potato fortification with calcium.	Paulo Legoinha
PDR2020 – Operação 1.0.1.	GO - Tomato biofortification for industrial processing and organic production – MPBIO.	Paulo Legoinha
PDR2020 – Operação 1.0.1.	GO - Grape biofortification with zinc for the production of red and white wine.	Paulo Legoinha
PDR2020 – Operação 1.0.1.	GO – Rice fortification with selenium	Paulo Legoinha
PDR2020 – Operação 1.0.1.	GO - Wheat biofortification with zinc for the production of flour.	Paulo Legoinha
FCT Projecto de Doutoramento	Aplicação de métodos de estudo de morfologia dentária na classificação e estudo de Chondrichthyes fósseis do Langhiano (Brielas,	Pedro Fialho. Ausenda Balbino
	Portugal).	
Fundação para a Ciência e Tecnologia - Projecto de Doutoramento	Lissamphibia and Lepidosauria in the Upper Jurassic of Portugal: systematics, palaeoecology and palaeobiogeography	Alexandre R. D. Guillaume. Miguel Moreno-Azanza (orientador), Octávio Mateus (co-orientador)
Fundação para a Ciência e Tecnologia - Projecto de Doutoramento	Evolution of nodosaurid dinosaurs and description of a new skeleton from the Late Jurassic of Portugal	João Russo
Fundação para a Ciência e Tecnologia - Projecto de Doutoramento	Pleistocene vertebrates from Portugal: Paleobiodiversity, paleoecology and quality of the fossil record.	Darío Estraviz Lopez
Fundação para a Ciência e Tecnologia - Projecto de Doutoramento	Diet and niche partitioning of Late Jurassic giant herbivores, with focus on Portuguese dinosaurs	André Saleiro
Fundação para a Ciência e Tecnologia - Projecto de Doutoramento	Biomechanics of dinosaurs: sauropod body movement and its engineering applications	Simone Conti





Fundação para a Ciência e Tecnologia - Projecto de Doutoramento	Dacentrurine stegosaurs (Dinosauria): evolution, paleobiology and the paleobiogeographical role of the Portuguese record	Francisco Costa
Fundação para a Ciência e Tecnologia - Projecto de Doutoramento	Evolutionary rates of basal iguanodontians around Jurassic-Cretaceous transition in Europe	Filippo Maria Rotatori
Fundação para a Ciência e Tecnologia - Projecto de Pós-Doutoramento	Fossil Crocodylomorpha of Portugal: Phylogenetic and paleobiogeographic implications	Eduardo Puértolas
Fundação para a Ciência e Tecnologia - Projecto de Pós-Doutoramento	Calcite growth and remobilization in the eggshell of basal theropods	Miguel Moreno-Azanza
GeoBioTec BSP MicroGrants	Amostragem paleontológica e sedimentológica do Miocénico da Península de Setúbal	Coord. Paulo Legoinha
GeoBioTec BSP MicroGrants	Explore the new FRONTier	proposto por Alexandre Guillaume
GeoBioTec BSP MicroGrants	Comparing Neogene lagerstätte of South and West Portugal: the ecological and environmental imprints of Cacela and Vale de Freixo fossil sites	Coord. Pedro Callapez

## 6 Technical / scientific potential

For Members only

(por exemplo: especialização em drones, processamento de imagens, mobilização de fotoassimilados, enzimologia, etc.... - IDENTIFICANDO ESPECIFICAMENTE OS MEMBROS ASSOCIADOS AS ESSAS VALÊNCIAS)

1. Drone image acquisition for Earth Sciences. J.C. Kullberg
2. LIDAR scanning for Earth Sciences. J.C. Kullberg
3. Museum scientific advice for paleontology and natural sciences. Octávio Mateus, Miguel Moreno Azanza
4. Tomography digital segmentation. Eduardo Puértolas Pascoal
5. 3D data acquisition using photogrammetry. Octávio Mateus, Eduardo Puértolas-Pascoal, J.C. Kullberg
6. Advanced phylogenetics. Miguel Moreno Azanza, Octávio Mateus, Eduardo Puértolas Pascoal