

2021

- Alonso, B., Juan, C., Ercilla, G., Cacho, I., López-González, N., Rodríguez-Tovar, F.J., Dorador, J., Francés, G., Casas, D., Vandorpe, T., Vázquez, J.T. 2021. Paleoceanographic and paleoclimatic variability in the Western Mediterranean during the last 25 cal. kyr BP. New insights from contourite drifts. *Marine Geology*, 437, 106488. <https://doi.org/10.1016/j.margeo.2021.106488>
- Casanova-Arenillas, S., Rodríguez-Tovar, F.J., Martínez-Ruiz, F. 2021. Ichnological analysis as a tool for assessing deep-sea circulation in the westernmost Mediterranean over the last Glacial Cycle. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 562, 110082. <https://doi.org/10.1016/j.palaeo.2020.110082>
- Celis, S.A., Rodríguez-Tovar, F.J., Giraldo-Villegas, C.A., Pardo-Trujillo, A. 2021. Evolution of a fluvial-dominated delta during the Oligocene of the Colombian Caribbean: Sedimentological and ichnological signatures in well-cores. *Journal of South American Earth Sciences*, 111, 103440. <https://doi.org/10.1016/j.jsames.2021.103440>
- de Castro, S., Miramontes, E., Dorador, J., Jouet, G., Cattaneo, A., Rodríguez-Tovar, F.J., Hernández-Molina, F.J., 2021. Siliciclastic and bioclastic contouritic sands: Textural and geochemical characterisation. *Marine and Petroleum Geology*, 128, 105002. <https://doi.org/10.1016/j.marpetgeo.2021.105002>
- de Weger, W., Chiarella, D., Rodríguez Tovar, F.J., Sierro, F.J., Miguez-Salas, O., Manar, M.A., Hernández-Molina, F.J. 2021. Tide-dominated deltas responding to high-frequency sea-level changes, Pre-Messinian Rifian Corridor, Morocco: Discussion. *Journal of Sedimentary Research*, 91, 8, 876-879.
- de Weger, W., Hernández-Molina, F.J., Miguez-Salas, O., de Castro, S., Bruno, M., Chiarella, D., Sierro, F.J., Blackbourn, G., Manar, M.A. 2021. Contourite depositional system after the exit of a strait: case study from the late Miocene Rifian Corridor, Morocco. *Sedimentology*, 68, 2996-3032.
- Dorador, J., Rodríguez-Tovar, F.J., Mena, A., Francés, G., 2021a. Deep-sea bottom currents influencing tracemaker community: An ichnological study from the NW Iberian margin. *Marine Geology*, 437, 106503.
- Dorador, J., Rodríguez-Tovar, F.J., Miguez-Salas, O. 2021b. The complex case of *Macaronichnus* trace fossil affecting rock porosity. *Scientific Reports*, 11, 1975.
- Dorokhova, E.V., Rodríguez-Tovar, F.J., Dorokhov, D.V., Kuleshova, L.A., Mena, A., Glazkova, T., Krechik, V.A. 2021. Landscape mapping, ichnological and benthic foraminifera trends in a deep-water gateway, Discovery Gap, NE Atlantic. *Geosciences*, 11, 474. <https://doi.org/10.3390/geosciences11110474>
- Esperante, R., Rodríguez-Tovar, F.J., Nalin, R., 2021. Rhizoliths in Lower Pliocene alluvial fan deposits of the Sorbas Basin (Almería, SE Spain). *Palaeogeography, Palaeoclimatology, Palaeoecology*, 567, 110281.

Fernández-Martínez, J., Rodríguez-Tovar, F.J., Piñuela, L., Martínez-Ruiz, F., García-Ramos, J.C., 2021a. Bottom- and pore-water oxygenation during the early Toarcian Oceanic Anoxic Event (T-OAE) in the Asturian Basin (N Spain): Ichnological information to improve facies analysis. *Sedimentary Geology* 419, 105909.

Fernández-Martínez, J., Rodríguez-Tovar, F.J., Piñuela, L., Martínez-Ruiz, F., García-Ramos, J.C., 2021b. The Halimedes record in the Asturian Basin (northern Spain): supporting the Toarcian Oceanic Anoxic Event relationship. *Geological Society, London, Special Publications*, 514, 173-184.

García-García, F., Rodríguez-Tovar, F.J., Poyatos-Moré, M., Yeste, L.M., Viseras, C., 2021. Sedimentological and ichnological signatures of an offshore-transitional hyperpycnal system (Upper Miocene, Betic Cordillera, southern Spain). *Palaeogeography, Palaeoclimatology, Palaeoecology*, 561, 110039.

Glazkova, T., Hernández-Molina, F.J., Dorokhova, E., Mena, A., Roque, C., Rodríguez-Tovar, F.J., Krechik, V., Kuleshova, L., Llave, E. 2021. Sedimentary processes in the Discovery Gap (Central-NE Atlantic): An example of a deep marine gateway. *Deep Sea Research Part I: Oceanographic Research Papers*, 103681.

Łaska, W., Rodríguez-Tovar, F.J., Uchman, A. 2021. Bioerosion structures from the Pliocene of the Agua Amarga Subbasin (Almería, SE Spain): Palaeoecological and palaeoenvironmental implications. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 562, 110071. <https://doi.org/10.1016/j.palaeo.2020.110071>

López-Quirós, A., Escutia, C., Etourneau, J., Rodríguez-Tovar, F.J., Roignant, S., Lobo, F.J., Thompson, N., Bijl, P.K., Bohoyo, F., Salzmann, U. 2021. Eocene-Oligocene paleoenvironmental changes in the South Orkney Microcontinent (Antarctica) linked to the opening of Powell Basin. *Global and Planetary Change*, 204, 103581.

Mángano, M.G., Piñuela, L., Buatois, L.A., Ortega-Hernández, J., Rodríguez-Tovar, F.J., García-Ramos, J.C., 2021a. Paleoecologic and paleoenvironmental implications of a new trace fossil recording infaunal molting in Devonian marginal-marine settings. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 561, 110043.

Mángano, M.G., Piñuela, L., Buatois, L.A., Ortega-Hernández, J., Rodríguez-Tovar, F.J., García-Ramos, J.C., 2021b. Addendum to: Paleoecologic and paleoenvironmental implications of a new trace fossil recording infaunal molting in Devonian marginal-marine settings. *Palaeogeography Palaeoclimatology Palaeoecology*, 564, 110183. <https://doi.org/10.1016/j.palaeo.2020.110183>

Martín Lorenzo, D., Rodríguez-Tovar, F.J., Martín Peinado, F.J. 2021. Evaluation of soil evolution after a fire in the southeast of Spain: A multiproxy approach. *Spanish Journal of Soil Science*, 11,10010. <https://doi.org/10.3389/sjss.2021.10010>

Mayoral, E., Genise, J.F., Rodríguez-Tovar, F.J., Santos, A., 2021. Coevalness of insect trace fossils and trace-bearing rocks, a case study from the Plio?-Pleistocene of SW Spain. *Palaios*, 36, 3,115-121. <https://doi.org/10.2110/palo.2020.042>

Miguez-Salas, O., Löwemark, L., Pan, Y.Y., Rodríguez-Tovar, F.J. 2021. Selective colonization after storm events in a delta environment: applied ichnology from the early Miocene of Taiwan. *Ichnos*, 1-13.

Miguez-Salas, O., Rodríguez-Tovar, F.J. 2021a. Trace fossil analysis of sandy clastic contouritic deposits in the late Miocene Rifian Corridor (Morocco): Ichnotaxonomical and palaeoenvironmental insights. *Journal of African Earth Sciences*, 174, 104054. <https://doi.org/10.1016/j.jafrearsci.2020.104054>

Miguez-Salas, O., Rodríguez-Tovar, F.J. 2021b. Ichnofabric analysis as a tool for characterization and differentiation between calcareous contourites and calciturbidites. *Journal of Sedimentary Research*, 91, 11, 1151-1165.

Miguez-Salas, O., Rodríguez-Tovar, F. J., de Weger, W. 2021a. The Late Miocene Rifian corridor as a natural laboratory to explore a case of ichnofacies distribution in ancient gateways. *Scientific Reports*, 11(1), 1-10.

Miguez-Salas, O., Rodríguez-Tovar, F. J., Dorador, J., Linares, F. 2021b. X-ray microtomography analysis to approach bioturbation's influence on minor-scale porosity distribution: A novel approach in contourite deposits. *Journal of Petroleum Science and Engineering*, 208, 109251. <https://doi.org/10.1016/j.petrol.2021.109251>

Pan, Y.Y., Nara, M., Löwemark, L., Miguez-Salas, O., Gunnarson, B., Iizuka, Y., Chen, T.T., Dashtgard, S.E. 2021. The 20-million-year old lair of an ambush-predatory worm preserved in northeast Taiwan. *Scientific Reports*, 11, 1174.

Pérez-Asensio, J.N., Rodríguez-Tovar, F.J., Łaska, W., Uchman, A. 2021. Palaeoenvironmental changes after the Messinian Salinity Crisis in the Mediterranean Almería-Níjar Basin (SE Spain) recorded by benthic foraminifera. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 577, 110536.

Rodríguez-Tovar, F.J., 2021a. The trace fossil record of the Toarcian Oceanic Anoxic Event in the Iberian Massif. *Geology Today*, 37, 4, 134-140.

Rodríguez-Tovar, F.J., 2021b. Ichnology of the Toarcian Oceanic Anoxic Event: An underestimated tool to assess palaeoenvironmental interpretations. *Earth-Science Reviews*, 216, 103579. <https://doi.org/10.1016/j.earscirev.2021.103579>

Rodríguez-Tovar, F.J., Dorador, J., Zuchuat, V., Planke, S., Hammer, Ø. 2021a. Response of macrobenthic trace maker community to the end-Permian mass extinction in Central Spitsbergen, Svalbard. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 581, 110637. <https://doi.org/10.1016/j.palaeo.2021.110637>

Rodríguez-Tovar, F.J., Miguez-Salas, O., Dorador, J. 2021b. Mercury intrusion porosimetry to evaluate the incidence of bioturbation on porosity of contourites. *Rivista italiana di Paleontologia e Stratigrafia*, 127, 149-161.

Rodríguez-Tovar, F.J., Pardo-Igúzquiza, E., Reolid, M. 2021c. Cyclic environmental changes during the Early Toarcian at the Mochras Farm Borehole (Wales): a variable response of the foraminiferal community. *Lethaia*, 54, 1, 113-126.

Sharafi, M., Rodríguez-Tovar, F.J., Bayet-Goll, A., Richiano, S. 2021a. Ichnofabric analysis of shallow to deep marine Carboniferous sediments, from the southern Paleotethys margin, Alborz Basin (northern Iran): approaching autogenic and allogenic environmental controls. *Historical Biology*, 1-20.

Sharafi, M., Rodríguez-Tovar, F.J., Janočko, J., Bayet-Goll, A., Mohammadi, M., Khanehbad, M. 2021b. Environmental significance of trace fossil assemblages in a tide-wave-dominated shallow-marine carbonate system (Lower Cretaceous), northern Neo-Tethys margin, Kopet-Dagh Basin, Iran. *International Journal of Earth Sciences*, 111, 103-126. <https://doi.org/10.1007/s00531-021-02101-0>

Sosa-Montes de Oca, C., Rodrigo-Gámiz, M., Martínez-Ruiz, F., Rodríguez-Tovar, F.J., Castro, J.M., Quijano, M.L., Pancost, R.D. 2021. Minor changes in biomarker assemblages in the aftermath of the Cretaceous-Paleogene mass extinction event at the Agost distal section (Spain). *Palaeogeography, Palaeoclimatology, Palaeoecology*. 569, 110310. <https://doi.org/10.1016/j.palaeo.2021.110310>

Wetzel, A., Rodríguez-Tovar, F.J., 2021. Preface: Ichnology, trace fossils and depositional environments. *Palaeogeography Palaeoclimatology Palaeoecology*, 565, 110220. <https://doi.org/10.1016/j.palaeo.2021.110220>

2022

Casanova-Arenillas, S., Rodríguez-Tovar, F.J., Martínez-Ruiz, F., 2022. Ichnological evidence for bottom water oxygenation during organic rich layer deposition in the westernmost Mediterranean over the Last Glacial Cycle. *Marine Geology*, 443, 106673. <https://doi.org/10.1016/j.margeo.2021.106673>

de Weger, W., Hernández-Molina, F.J., Sierro, F.J., Chiarella, D., Llave, E., Fedele, J.J., Rodríguez-Tovar, F.J., Miguez-Salas, O., Manar, M.A., 2022. Contourite channels – Facies model and channel evolution. *Sedimentology*, 13042.

Dorokhova, E.V., Rodríguez-Tovar, F.J., Dorokhov, D.V., Kuleshova, L.A., Mena, A., Glazkova, T., Krechik, V.A., 2022. Sedimentary processes in the Discovery Gap (Central-NE Atlantic): An example of a deep marine gateway Deep Sea Research Part I: Oceanographic Research Papers, 130, 103681.

González-Lanchas, A., Dorador, J., Rodríguez-Tovar, F.J., Sierro, F.J., Flores, J.A., 2022. Trace fossil characterization during Termination V and MIS 11 at the western Mediterranean: Connection between surface conditions and deep environment. *Marine Geology*, 446, 106774.

Hernández-Molina, F.J., Hüneke, H., Rodríguez-Tovar, F.J., Ng, Z.L., Llave, E., Mena, A., Gibb, A., Chiarella, D., Sammartino, S., de la Vara, A., 2022. Eocene to middle Miocene contourite deposits in Cyprus: a record of Indian Gateway evolution. *Global and Planetary Change*, 219, 103983.

Miguez-Salas, O., Dorador, J., Rodríguez-Tovar, F.J., Linares, F., 2022. X-ray microtomography analysis to approach bioturbation's influence on minor-scale

porosity distribution: A novel approach in contourite deposits. *Journal of Petroleum Science and Engineering* 208, 109251

Miguez-Salas, O., Dorador, J., Rodríguez-Tovar, F.J., 2022. Multi-technique comparison to assess the effect of bioturbation on porosity – A study case for reservoir quality in contourites. *Facies* <https://doi.org/10.1007/s10347-022-00650-7>

Miguez-Salas, O., Vardaro, M., Rodríguez-Tovar, F.J., Pérez-Claros, J.P., Huffard, C., 2022. Deep-sea echinoid trails and seafloor nutrient distribution: present and past implications. *Frontiers of Marine Sciences*.

Miguez-Salas, O., Cabrera Ortíz, J., Dorador, J., Rodríguez-Tovar, F.J., 2022. The puzzling influence of Ophiomorpha (trace fossil) on reservoir porosity: X-ray microtomography analysis. *Frontiers of Earth Sciences*.

Poyatos-Moré, M., García-García, F., Rodríguez-Tovar, F.J., Soria, J.M., Viseras, C., Pérez-Valera, F., Midtkandal, I., 2022. Sharp-based, mixed carbonate-siliciclastic shallow-marine deposits (upper Miocene, Betic Cordillera, Spain): the record of ancient transgressive shelf ridges? *Sedimentary Geology*, 429, 106077.

Rodrigues, S., Hernández-Molina, F.J., Larter, R.D., Rebesco, M., Hillenbrand, C.D., Lucchi, R.G., Rodríguez-Tovar, F.J., 2022. Sedimentary model for mixed depositional systems along the Pacific margin of the Antarctic Peninsula: Decoding the interplay of deep-water processes. *Marine Geology*, 445, 106754

Rodrigues, S., Hernández-Molina, F.J., Hillenbrand, C.D., Lucchi, R.G., Rodríguez-Tovar, F.J., Rebesco, M., Larter, R.D., 2022. Recognizing key sedimentary facies and their distribution in mixed turbidite–contourite depositional systems: The case of the Pacific margin of the Antarctic Peninsula. *Sedimentology*, 69, 1953-1991.

Rodríguez-Tovar, F.J., 2022. A tool to characterize deep-marine processes and sediments. *Earth Science Reviews*, 228, 104014.

Rodríguez-Tovar, F.J., Kaskes, P. et al., 2022. Ichnological analysis: Life before impact in the Chicxulub area: unique marine ichnological signatures preserved in crater suevite. *Scientific Reports*, 12, 11376.

2023

Brandt, A., Chen, C., Tandberg, A.H.S., Miguez-Salas, O., Sigwart, J., 2023. Complex sublinear burrows in the deep sea may be constructed by amphipods. *Ecology and Evolution*.

Fernández-Martínez, J., Martínez Ruíz, F., Rodríguez-Tovar, F.J., Piñuela, L., García-Ramos, J.C., Algeo, T.J., 2023. Euxinia and hydrographic restriction in the Tethys Ocean: Reassessing global oceanic anoxia during the early Toarcian. *Global and Planetary Changes*, 221, 104026.

Giraldo Villegas, C.A., Rodríguez-Tovar, F.J., Celis, S.A., Pardo-Trujillo, A., Duque-Castaño, M.L., 2023. Paleoenvironmental conditions over the Caribbean Large

Igneous Province during the Late Cretaceous in NW of South American Margin: A sedimentologic and ichnologic approach. *Cretaceous Research*, 142, 105407.

Sigwart, J.D., Brandt, A., Di Franco, D., Briones, E.E.,...Miguez-Salas O. et al., 2023. Heterogeneity on the abyssal plains: A case study in the Bering Sea. *Frontiers in Marine Sciences*, 9, 1037482.

van Dijk, G., Maars, J., Andreetto, F., Hernández-Molina, F.J., Rodríguez-Tovar, F.J., Krijgsman, W., 2023. A terminal Messinian flooding of the Mediterranean evidenced by contouritic deposits on Sicily. *Sedimentology*, 13074.

LIBROS

Pardo-Igúzquiza, E., Rodríguez-Tovar, F.J. 2021 Maximum Entropy Spectral Analysis. En: Daya Sagar, B.S. et al. (Eds.), *Encyclopedia of Mathematical Geosciences, Encyclopedia of Earth Sciences Series*. Springer Nature Switzerland

Rodríguez-Tovar, F.J., Wetzel, A. 2021 (Eds). *Ichnology, trace fossils and depositional environments. Palaeogeography Palaeoclimatology Palaeoecology*

Hernández-Molina, F.J.,...Rodríguez-Tovar, F.J. et al., 2022. Contourites and mixed depositional systems: A paradigm for deepwater sedimentary environments. En: *Deepwater Sedimentary Systems. Science, Discovery, and Applications*. Elsevier, 301-360.

Rodríguez-Tovar, F.J., Miguez-Salas, O., Dorador, J., 2022. Ichnological analysis: Deepwater ichnology: New observations on contourites. En: *Deepwater Sedimentary Systems. Science, Discovery, and Applications*. Elsevier, 533-554.

<https://doi.org/10.1016/B978-0-323-91918-0.00004-9>