



## Dr Maria Antonieta Lorente

**Palynology stratigraphy staff**

**Principal Biostratigrapher and Stratigraphic Services Manager**

Tonya has a PhD in Mathematics and Natural Sciences (*Palynology and palynofacies of the Upper Tertiary in Venezuela*, U. Amsterdam, The Netherlands, 1987), an MSc in Sedimentary Geology (Central U. of Venezuela [UCV], Caracas, Venezuela, 1983) and is a qualified Geological Engineer (UCV, Caracas, Venezuela, 1976). Tonya is bilingual in Spanish and English.

Her expertise encompasses Late Paleozoic spores and Mesozoic through Neogene pollen, spores, dinoflagellates, palynofacies, palynological organic matter and thermal maturation studies. Tonya has been working as manager and part of the biostratigraphy team since 2013, employing her previous experience of project and personnel competency assessment and stratigraphy team management in the oil and gas industry. She is also a Professor in the UCV Geology Department, teaching online courses in stratigraphy since 2002, and is involved in ongoing research on bio-, cyclo- and isotope stratigraphies. Already with extensive expertise in South American Mesozoic-Cenozoic sedimentology and biostratigraphy, since joining the team, she has expanded her experience to include several US onshore basins, including the Paleozoic of the Western Interior Seaway and Permian Basin, and also the Triassic-Jurassic of Kurdistan, Cretaceous through Neogene of Belize, and the Cretaceous of diverse areas, such as the South Atlantic and Oman.

### Publications:

- 2011 — Salazar, M., Moscardelli, L., Fisher, W. & Lorente, M.A. Tectonostratigraphic evolution of the Morichito piggyback basin, Eastern Venezuelan Basin. *Marine and Petroleum Geology*, 28: 109-125.
- 2009 — Cooney, P. & Lorente, M.A. A structuring event of Campanian age in western Venezuela, interpreted from seismic and palaeontological data. In: K. James, M.A. Lorente & J. Pindell (Eds). *The Origin and Evolution of the Caribbean Plate*. Geological Society of London, Special Publication, 328: 687-703.
- 2009 — James, K. & Lorente, M.A. The Pacific Origin Paradigm (POP) should be questioned for the Caribbean Plate. *Geoscientist*, 19(9): 12-15.
- 2009 — James, K., Lorente, M.A. & Pindell, J. (Eds). The Origin and Evolution of the Caribbean Plate. *Geological Society of London, Special Publication*, 328: 868pp.
- 2004 — Rey, O., Simo, J.A. & Lorente, M.A. A record of long- and short-term environmental and climatic change during OAE3: La Luna Formation, Late Cretaceous (Santonian-early Campanian), Venezuela. *Sedimentary Geology*, 170: 85-105.
- 2003 — Bralower, T. & Lorente, M.A. Paleogeography and Stratigraphy of the La Luna Formation and related Cretaceous Anoxic Depositional Systems. *PALAIOS*, 18(4-5): 301-304.
- 2003 — Durán, I., Ruiz, M., Fasola, A. & Lorente, M.A. Biofacies Development Related To Upwelling Systems, Based On High Resolution Biostratigraphic Studies In Southwest Venezuela. *Courier-Forschungsinstitut Senckenberg*: 47-60.
- 2003 — Parra, M., Moscardelli, L. & Lorente, M.A. Late Cretaceous Anoxia and Lateral Microfacies Changes in the Tres Esquinas Member, La Luna Formation, Western Venezuela. *PALAIOS*, 18(4-5): 321-333.
- 2003 — Zapata, E., Padron, V., Madrid, I., Kernutz, V., Truskowski, I. & Lorente, M.A. Biostratigraphic, sedimentologic, and chemostratigraphic study of La Luna Formation (Late Turonian – Campanian) in the San Miguel and Las Hernandez Sections, Western Venezuela. *PALAIOS*, 18(4-5): 367-377.
- 2000 — Armentrout, J.M., Lorente, M.A., Ozuma, B. & van Heck, S. Industrial Paleontology. In: R. Lane, F. Steininger, R. Kaesler, W. Ziegler & J. Lipps (Eds). *Fossils and the Future. Paleontology in the 21st Century*. Senckenberg, Frankfurt, Book No. 74: 83-102.
- 2000 — Erlich, R.N., Macsotay, O., Nederbragt, A.J. & Lorente, M.A. Birth and death of the Late Cretaceous "La Luna Sea" and origin of the Tres Esquinas phosphorites. *Journal of South American Earth Sciences*, 13: 21-45.
- 2000 — Parrish, J.T., Koch, P., Allmon, W., Ashley, G., Cuneo, R., Lorente, M.A. & Schindler, E. Paleoclimatology. In: R. Lane, F. Steininger, R. Kaesler, W. Ziegler & J. Lipps (Eds). *Fossils and the Future. Paleontology in the 21st Century*. Senckenberg, Frankfurt, Book No. 74: 167-172.
- 1999 — Erlich, R.N., Macsotay, O., Nederbragt, A.J. & Lorente, M.A. Palaeoceanography, palaeoecology and depositional environments of Upper Cretaceous rocks of Western Venezuela. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 153: 203-238.
- 1999 — Erlich, R.N., Palmer-Koleman, S.E. & Lorente, M.A. Geochemical characterization of oceanographic and climatic changes recorded in Upper Albian to Lower Maastrichtian strata, Western Venezuela. *Cretaceous Research*, 20: 547-581.
- 1998 — Pestman, S., Ghosh, L., Melendez, L. & Lorente, M.A. Marco Tectonoestratigráfico y paleogeografía de la Cuenca de Maracaibo y áreas vecinas durante el Paleogeno. *Bol. Soc. Venez. de Geólogos*, 23(1): 28-45.
- 1997 — Cooney, P. & Lorente, M.A. Implicaciones Tectónicas de un Evento Estructural en el Cretácico Superior (Santonense - Campaniense) de Venezuela Occidental. *Memorias VIII Congreso Geológico Venezolano*, 1: 195-204.
- 1997 — Erlich, R.N., Nederbragt, A.J. & Lorente, M.A. Origin and depositional environments of Turonian – Maastrichtian organic-rich and phosphatic sediments of Western Venezuela. *VI Simposio Bolivariano de Exploración en la Cuencas Subandinas. Asociación Colombiana de Geólogos y Geofísicos del Petróleo, Memorias*, 1: 195-204.
- 1997 — Gómez, M., Cassani, F. & Lorente, M.A. Nuevas determinaciones de carbono orgánico total (COT) en formaciones cretácicas con perfiles convencionales en el noroeste del Lago de Maracaibo. *Estado Zulia. Memorias VIII Congreso Geológico Venezolano*, 1.
- 1997 — Hidalgo, M., Bertorelli, G., Marquez, F., Truskowski, I., Duran, I. & Lorente, M. Bioestratigrafía y edad de sedimentación de la Formación Misosa en la Serranía de Trujillo. *Memorias VIII Congreso Geológico Venezolano*, 1.
- 1997 — Lorente, M.A. & Contreras, C. Datación de Secuencias oligomiocenas en el área de Alturitas y sus implicaciones para el conocimiento de la evolución tectono-estratigráfica de Perijá. *Memorias VIII Congreso Geológico Venezolano*, 1.
- 1997 — Lorente, M.A., Rull, V., Ruiz, M., Durán, I., Truskowski, I. & DiGiacomo, E. Nuevos aportes para la datación de los principales eventos tectónicos y unidades litoestratigráficas de la Cuenca de Maracaibo, Venezuela Occidental. *Boletín de Geología, Ministerio de Energía y Minas, Caracas*, 18(31): 33-50.
- 1997 — Rull, V. & Lorente, M.A. Area central del Lago de Maracaibo: la bioestratigrafía como herramienta para la interpretación paleoestructural del Eoceno. *Memorias VIII Congreso Geológico Venezolano*, 1.
- 1995 — Hoom, C., Guerrero, J., Sarmiento, G. & Lorente, M.A. Andean tectonics as a cause for changing patterns in Miocene northern South America. *Geology*, 23: 237-240.
- 1993 — Boesi, T., Higgs, R., Lorente, M.A. et al. Facies And Sedimentary Environments Of The Cretaceous La-Luna Formation In San-Pedro-Del-Rio Section, Venezuelan Andes - A Multidisciplinary Study. *AAPG Bulletin*, 77(2): 308-318.
- 1991 — Lorente, M.A. Digital image analysis: an approach for quantitative characterization of organic facies and palynofacies. *Proceedings International Symposium on Organic Petrology. Mededel. Rijks Geol. Dients*, 45: 103-108.
- 1991 — Lorente, M.A. & van Bergen, P.F. *Summary of Organic Matter Classifications*. Open Workshop on Organic Matter Classification Book. Universiteit van Amsterdam: 43-60.
- 1990 — Lorente, M.A. Textural characteristics of organic matter in several sub-environments of the Orinoco Upper Delta. *Geologie en Mijnbouw*, 69: 263-278.
- 1990 — Lorente, M.A. & van Bergen, P.F. A Multilevel Approach to Organic Matter Classification. *Stuifmail*, 8(2): 9-16.
- 1988 — Lorente, M.A. & Boesi, T. Estudio estratigráfico del flanco Norandino en el sector Lobatera-El Vigía. *III Simposio Bolivariano Exploratorio Petrolero de las Cuencas Subandinas*, 1: 2-41.
- 1986 — Lorente, M.A. *Palynology and palynofacies of Upper Tertiary in Venezuela*. Dissertationes Botanicae, Band 99, Berlin: 222pp.
- 1977 — Sanchez, T.U. & Lorente, M.A. Paleocología del Miembro Quevedo (Formación Navay) en las proximidades de Santa Barbara de Barinas. *Memorias V Congreso Geológico Venezolano*, 1: 107-133.