**CURRICULUM VITAE**

 **LAWRENCE H. TANNER**

 Department of Biological Sciences

 Le Moyne College

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**EDUCATION**

 University of Massachusetts at Amherst

 Doctor of Philosophy, major: geology, 1990.

 University of Tulsa

 Master of Science, major: geology, 1980.

 Williams College

 Bachelor of Arts, major: geology, cum laude, 1978.

**EXPERIENCE**

 **Teaching**

Le Moyne College

 Professor 2008 – Present

 Associate Professor 2006 - 2008

Visiting Professor 2005 – 2006

 *Courses taught*: Paleobiology of Dinosaurs; Earth: History and Inhabitants; Global

 Resources; Global Ecosystems; Global Climate Systems; Physical Geology; Poisoning of

 the Planet; Earth’s Surface

 *Honors and awards*: Joseph C. Georg Endowed Professorship (2018-2021)

 Louis D. De Gennaro, Ph.D. Mentor of the Year (2013)

 Rev. Richard M. McKeon, S.J. Scholar of the Year (2012)

 Bloomsburg University

 Professor 1999 - 2005

 Associate Professor 1996 - 1998

 Assistant Professor 1992 - 1996

 *Courses taught*: Sedimentation and Stratigraphy, Earth Materials, Volcanoes, Natural

 Disasters, Physical Geology, Environmental Geology, Historical Geology.

Colgate University

 Visiting Assistant Professor 1991 - 1992

 *Courses taught*: Sedimentation and Stratigraphy, Petroleum Geology, Hydrogeology.

 Colby College

 Visiting Assistant Professor 1990 - 1991

 *Courses taught*: Stratigraphy, Physical Geology, Historical Geology, Environmental

 Geology.

 University of Massachusetts

 Lecturer 1990, 1991 (summer)

**Industry**

Cities Service Oil and Gas Corp., Tulsa, Oklahoma

Production Geologist 1981 - 1986

**PUBLICATIONS**

# *EDITED VOLUMES*

**Tanner, L.H.** (ed.), 2018. *The Late Triassic World: Earth in a Time of Transition*. Springer,

 Topics in Geobiology 46, 807 pp.

**Tanner, L.H.**, Lucas, S.G. (eds.), 2014. *Jurassic of the Western Interior of North America*.

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# Tanner, L.H., Spielmann, J.A., Lucas, S.G. (eds.), 2013. *The Triassic System: New*

#  *Developments in Stratigraphy and Paleontology*. Albuquerque, New Mexico Museum of

#  Natural History and Science, Bulletin 61.

# Alonso-Zarza, A.M., Tanner, L.H. (eds.), 2010. *Carbonates in Continental Environments:*

#  *Geochemistry, Diagenesis and Applications*. Developments Sedimentology 62, Elsevier.

# Alonso-Zarza, A.M., Tanner, L.H. (eds.), 2010. *Carbonates in Continental Environments:*

#  *Processes, Facies and Environments*. Developments Sedimentology 61, Elsevier.

Alonso-Zarza, A.M., **Tanner, L.H**. (eds.), 2006. *Paleoenvironmental Record and Applications*

 *of Calcretes and Palustrine Carbonates*. Geological Society of America, Special Paper 416.

# *TEXTBOOKS*

**Tanner**, L.H. and Calvari, S., 2012. *Volcanoes: Windows on the Earth*. Albuquerque, New

 Mexico Museum of Natural History and Science, 174 pp.

Chernicoff, S., Fox, H., and **Tanner**, L.H., 2001. *Earth: Geologic Principles and History* (1st

 ed.). Boston, Houghton Mifflin Co.

 ***PAPERS IN refereed journals and volumes***

(\* undergraduate student co-author)

**2024**

El-Kahtanya, K., Faroukb, S., Ahmad, F., **Tanner, L**., Mohammed, I., 2024. Facies associations

 and stratigraphic sequence of the Dhruma Formation (Middle Jurassic) at its type locality,

 Khashm adh Dhibi, Saudi Arabia. Carbonates and Evaporites (in perss).

**2023**

**Tanner, L.H.,** Kikukawa, G., Weits, K., 2023. Albedo on a glacial foreland at ground level and

 landscape scale driven by vegetation-substrate patterns. European Journal of Environmental

 Sciences, 13(2), 71-79.

**Tanner, L.H.**, Lucas, S.G., 2023. Record of palaeoclimate across the Cretaceous–Palaeogene

 boundary from palaeosols in the west-central San Juan Basin, New Mexico, USA. The

 Depositional Record, DOI: 10.1002/dep2.251.

Lawa, F.A., Mohammed, I., Farouk, S., Ahmad, F., Faris, M., **Tanner, L**., Al-Kahtany, K., 2023.

 Stratigraphic architecture of the Tethyan Cenomanian-Turonian succession and OAE2 in the

 Dokan Area, Kurdistan Region, northeast Iraq. Journal of African Earth Sciences 207:

 https://doi.org/10.1016/j.jafrearsci.2023.105064.

Wanas, H.A., **Tanner, L.H.**, Khalifa, M.M., Mousa, F.A., Plio-Pleistocene continental

 carbonates and silcretes in Wadi El-Natrun, NW Egypt: Their morphology and

 paleoenvironmental significance. Journal of African Earth Sciences, 198:

 <https://doi.org/10.1016/j.jafrearsci.2022.104813>.

**2021**

Synan, H.E.\*, Melfi, M.A.\*, **Tanner, L.H.**, 2021. Spatial and temporal dynamics of growth of

 woody plant species (birch and willows) on the foreland of a retreating glacier in southern

 Iceland. *Ecological Processes*, 10:13, <https://doi.org/10.1186/s13717-021-00282-9>.

Lucas, S.G., **Tanner, L.H**., 2021. Late Pennsylvanian calcareous paleosols from central New

 Mexico: implications for paleoclimate. *New Mexico Geology*, 43(1), 1-9.

**2020**

**Tanner, L.H.**, Kyte, F.T., Puffer, John, H., 2020. Widespread elevated iridium

 in Upper Triassic–Lower Jurassic strata of the Newark Supergroup: implications for use

 as an extinction marker. *Scientific Reports*, https://doi.org/10.1038/s41598-020-76238-4

**Tanner, L.H.**, Lucas, S.G., 2020. The isotopic composition of pedogenic carbonate as a record

 of pCO2: Insights from the Late Paleozoic of tropical western Pangea, Ch. 10. In: Monenari,

 M. (ed.) *Carbon Isotope Stratigraphy*, Elsevier Time and Stratigraphy, Vol. 5, p. 529-565.

Rigo, M., Onoue, T., **Tanner, L.H**., Lucas, S.G., Godfrey, L., Katz, M.E., Zaffania, M., Grice,

 K., Cesar, J., Yamashita, D., Marona, M., Tackett, L.S., Campbell, H., Tateo, F., Concheri, F.,

 Agnini, C., Chiari, M., Bertinelli, A., 2020. The Late Triassic Extinction at the

 Norian/Rhaetian boundary: Biotic evidence and geochemical signature. *Earth-Science*

 *Reviews* 240, 103180.

**2019**

Glausen, T.G.\*, **Tanner, L.H.**, 2019. Successional trends and processes on a

 glacial foreland in Southern Iceland studied by repeated species counts. *Ecological Processes*

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**Tanner, L.H.,** Vandewarker, M.M.\*, 2019. Significance of vegetation cover differences on

 albedo and soil carbon on a basaltic sandplain in southern Iceland. *AIMS Environmental*

 *Science* 6(6): 435–444. DOI: 10.3934/environsci.2019.6.435

Palmer, C.A.\*, Markstein, K.P.\*, **Tanner, L.H.**, 2019. Experimental test of temperature and

 moisture controls on the rate of microbial decomposition of soil organic matter: preliminary

 results. *AIMS Geosciences* 5(4): 886–898. DOI: 10.3934/geosci.2019.4.886

**2018**

**Tanner, L.H.**, Lucas, S.G., 2018. Pedogenic record of climate change across the Pennsylvanian-

 Permian boundary in red-bed strata of the Cutler Group, northern New Mexico, USA.

 *Sedimentary Geology* 373: 98-110.

**Tanner, L.H.**, 2018. Climates of the Late Triassic: perspectives, proxies and problems. In:

 Tanner, L.H.(ed.), *The Late Triassic World: Earth in a Time of Transition*. Springer,

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Lucas, S.G., **Tanner, L.H.**, 2018. The missing mass extinction at the Triassic-Jurassic

 boundary. In: Tanner, L.H.(ed.), *The Late Triassic World: Earth in a Time of*

 *Transition*. Springer, Topics in Geobiology 46: 721-785.

Clutson, M.J., Brown, D.E., **Tanner, L.H.**, 2018. Distal processes and effects of multiple

 Late Triassic terrestrial bolide impacts: Insights from the Norian Manicouagan event,

 northeastern Quebec, Canada Tanner, L.H.(ed.), *The Late Triassic World: Earth in*

 *a Time of Transition*. Springer, Topics in Geobiology 46: 127-187.

Lucas, S.G., **Tanner, L.H.**, 2018. Record of the Carnian wet episode in strata of the Chinle

 Group, western USA. *Journal of the Geological Society* doi.org/10.1144/jgs2017-134.

Galli, G.K., Buchwaldt, R., Lucas, S.G., **Tanner, L.H**., 2018. New chemical abrasion thermal

 ionization mass spectrometry dates from the Brushy Basin Member, Morrison Formation,

 Western Colorado: Implications for dinosaur evolution. *Journal of Geology* 126, DOI:

 10.1086/699208.

**2017**

 **Tanner, L.H.**, Lucas, S.G., 2017. Paleosols of the Upper Paleozoic Sangre de Cristo

 Formation, north-central New Mexico: Record of early Permian palaeoclimate in tropical

 Pangaea. *Journal of Palaeogeography* 6(2), 144-162.

Khalifa, M.A., **Tanner, L.H.**, 2017. High frequency peritidal cycles in the Upper Cretaceous

 (Turonian) El Hefhuf Formation, Bahariya Oasis, Western Desert, Egypt. *Journal of African*

 *Earth Sciences* 130, 223-237.

**2016**

 **Tanner, L.H.**, Lucas, S.G., 2016. Stratigraphic distribution and significance of a 15 million-

 year record of fusain in the Upper Triassic Chinle Group, southwestern USA.

 *Palaeogeography, Palaeoclimatology, Palaecology* 461, 261-271.

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 groups and formations in the Upper Permian?–Lower Jurassic Newark Supergroup of eastern

 North America. *Stratigraphy* 13, 111-153.

 **Tanner, L.H.,** Kyte, F.T., Richoz, S., Krystyn, L., 2016. Distribution of iridium and associated

 geochemistry across the Triassic-Jurassic boundary in sections at Kuhjoch and Kendlbach,

 Northern Calcareous Alps, Austria. *Palaeogeography, Palaeoclimatology, Palaecology* 449,

 DOI: 10.1016/j.palaeo.2016.01.011

 **Tanner, L.H.,** Wilckens, M.T.\*, Nivison, M.A.\*, Johnson, K.M., 2016. Biomass and soil

 carbon stocks in wet montane forest, Monteverde Region, Costa Rica: Assessments and

 challenges for quantifying accumulation rates. *International Journal of Forestry Research*,

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 **2015**

 Lucas, S.G., **Tanner, L.H.**, 2015. End-Triassic nonmarine biotic events. *Journal of*

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**Tanner, L.H.,** Lucas, S.G., 2015. The Triassic-Jurassic strata of the Newark Basin, USA: A

 complete and accurate astronomically-tuned timescale? *Stratigraphy* 12: 47-65.

**Tanner, L.H.**, Nivison, M., Arnalds, O., Svavarsdottir, K., 2015. Soil carbon accumulation and

 CO2 flux in experimental restoration plots, southern Iceland: comparing soil treatment

 strategies. *Applied and Environmental Soil Science*, <http://dx.doi.org/10.1155/2015/205846>.

Rinehart, L. F., Lucas, S. G., **Tanner**, L. H., Nelson, W. J., Elrick, S. D., Chaney, D. S.,

 DiMichele, W. A., 2015. Plant architecture and spatial structure of an early Permian woodland

 buried by flood waters, Sangre de Cristo Formation, New Mexico. *Palaeogeography,*

 *Palaeoecology, Palaeoclimatology* 424: 91-110.

Lucas, S.G., Krainer, K., Dimichele, W.A., Voigt, S., Berman, D.S., Henrici, A.C., **Tanner**,

 L.H., Chaney, D.S., Elrick, S.D., Nelson, W.J., Rinehart, L.F., 2015. Lithostratigraphy,

 biostratigraphy and sedimentology of the Upper Paleozoic Sangre De Cristo Formation,

 southwestern San Miguel County, New Mexico. In: Lindline, J., Petronis, M., Zebrowski, J.

 (eds.), Guidebook 66 - Geology of the Las Vegas Area, New Mexico Geological Society

 66th Annual Fall Field Conference Guidebook, pp. 211-228

**2014**

**Tanner, L.H.**, Galli, K.G., Lucas, S.G., 2014. Pedogenic and lacustrine features of the Brushy

 Basin Member of the Upper Jurassic Morrison Formation in western Colorado: Reassessing the

 paleoclimatic interpretations. *Volumina Jurassica* 12 (2): 115-130.

**Tanner, L.H**., Steiner, M., 2014. Magnetostraigraphy and paleopoles of the Kayenta

 Formation and the Tenney Canyon Tongue. *Volumina Jurassica* 12 (2): 31-38.

Lucas, S.G., **Tanner, L.H.**, 2014. Unconformable contact of the Lower Jurassic Wingate and

 Kayenta formations, southeastern Utah. *Utah Geological Association*, UGA-43: 311-320.

**Tanner, L.H.**, Smith, D. L., Curry, J.\*, Twist, J.\*, 2014. Effect of Land Use Change on

 Carbon Content and CO2 flux of Cloud Forest Soils, Santa Elena, Costa Rica. *Open Journal of*

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Lucas, S.G., **Tanner, L.H.**, 2014. Triassic timescale based on tetrapod biostratigraphy and

 biochronology. In: R. Rocha et al. (eds.), STRATI 2013. Springer Geology, 1013-1016.

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**Tanner, L.H.**, Lucas, S.G., 2014. Limitations of the astronomically tuned time scale: A case

 study from the Newark Basin. In: R. Rocha et al. (eds.), STRATI 2013. Springer Geology,

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**2013**

**Tanner, L.H.,** 2013. Surface Morphology of Basalt Columns at Svartifoss,

 Vatnajökulsþjóðgarður, Southern Iceland. *Journal of Geological Research*,

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**Tanner, L.H.,** Walker, A.E., Nivison, M.\*, Smith, D.L., 2013. Changes in soil composition and

 floral coverage on a glacial foreland chronosequence, southern Iceland. *Open Journal of Soil*

 *Science* 3, 191-198.

**Tanner, L.H.**, 2013. A Pennsylvanian tetrapod trackway from Joggins, Nova Scotia: the size

 continuum of *Batrachichnus salamandroides*. *New Mexico Museum Natural History and*

 *Science, Bulletin* 60, 427-432.

**Tanner, L.H.,** Lucas, S.G., 2013. Degraded wood in the Upper Triassic Petrified Forest

 Formation (Chinle Group), northern Arizona: Differentiating fungal rot from arthropod

 boring. *New Mexico Museum Natural History and Science, Bulletin* 61, 582-588.

 **Tanner, L.H.,** Lucas, S.G., 2013. Isotopic composition of carbonate facies in formations of the

 Upper Triassic Chinle group, Four Corners area, southwestern United States. *New Mexico*

 *Museum Natural History and Science, Bulletin* 61, 589-596.

**Tanner, L.H.**., 2013. The enigmatic Quaco cobbles, Upper Triassic, Canadian Maritimes:

 Deformation by seismic shock or tectonics? *New Mexico Museum Natural History and*

 *Science, Bulletin* 61, 577-581.

**2012**

**Tanner, L.H.,** Lucas, S.G., 2012. Carbonate facies of the Upper Triassic Ojo Huelos Member,

 San Pedro Arroyo Formation (Chinle Group), southern New Mexico: Paleoclimatic

 implications. *Sedimentary Geology* 273-274, 73-90.

Lucas, S.G., **Tanner, L.H.**, Kozur, H.W., Weems, R.E., Heckert, A.B., 2012. The Late Triassic

 timescale: Age and correlation of the Carnian–Norian boundary. *Earth-Science Reviews* 114,

 1-18.

**Tanner, L.H.,** Wang, X., Morabito, A.C.\*, 2012. Fossil charcoal from the Middle Jurassic of the

 Ordos Basin, China, and its paleoatmospheric implications. *Geoscience Frontiers*

 doi:10.1016/j.gsf.2011.12.001.

**2011**

Lucas, S.G., **Tanner, L.H.**, Donohoo-Hurley, L.L., Geissman, J.W., Kozur, H.W., Heckert,

 A.B., Weems, R.E. 2011. Position of the Triassic-Jurassic boundary and timing of the end-

 Triassic extinctions on land: Data from the Moenave Formation on the southern Colorado

 Plateau, USA. *Palaeogeography, Palaeoecology, Palaeoclimatology* 302, 194-205.

Marzoli, A., Jourdan, F. Puffer, J.H., Cuppone, T., **Tanner, L.H.**, Weems, R.E., Bertrand, H.,

 Cirilli, S., Bellieni, G., De Min, A. 2011. Timing and duration of the Central Atlantic

 magmatic province in the Newark and Culpeper basins, eastern U.S.A.*Lithos* 122, 175-188.

Calvari, S., **Tanner, L.H.**, 2011. The Miocene Costa Giardini diatreme, Iblean Mountains,

 southern Italy: Model for maar-diatreme formation on a submerged carbonate platform.

 *Bulletin of Volcanology* 73, 557-576.

**2010**

 **Tanner, L.H.**, 2010. Cyclostratigraphic record of the Triassic: a critical examination. In,

 Lucas, S.G. (ed.), *The* *Triassic Timescale*, Geological Society, London, Special Publication

 334, 119-137.

**Tanner, L.H.**, 2010. The Triassic isotope record. *The* *Triassic Timescale*, In, Lucas, S.G. (ed.),

 *The* *Triassic Timescale*, Geological Society, London, Special Publication 334, 103-118.

**Tanner, L.H.** and Khalifa, M.A., 2010. Origin of ferricretes in fluvial-marine deposits of the

 Lower Cenomanian Bahariya Formation, Bahariya Oasis, Western Desert, Egypt. *Journal of*

 *African Earth Sciences* 56, 179-189.

**Tanner, L.H.** and Lucas, S.G., 2010. Deposition and deformation of fluvial-lacustrine

 sediments of the Upper Triassic - Lower Jurassic Whitmore Point Member, Moenave

 Formation, northern Arizona. *Sedimentary Geology* 223, 180-191.

**Tanner, L.H.**, 2010. Terrestrial carbonates as indicators of palaeoclimate. In: Alonsa-Zarza,

 A.M., Tanner, L.H. (Eds.), *Carbonates in Continental Settings: Geochemistry, Diagenesis and*

 *Applications*, Elsevier, Developments in Sedimentology vol. 62, pp. 179-214.

**2009**

 Cirilli, S., Marzoli, A., **Tanner**, L.H., Bertrand, H., Buratti, N., Jourdan, F., Bellieni, G.,

 Kontak, D., Renne, R.P., 2009. The onset of CAMP eruptive activity and the Tr-J

 boundary: Stratigraphic constraints from the Fundy Basin, Nova Scotia. *Earth*

 *and Planetary Science Letters* 286, 514-525.

Guex, J., Bartolini, A., Taylor, D., Atudorei, V., Thelin, P., Bruchez, S., **Tanner, L.**, Lucas, S.,

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 Triassic-Jurassic boundary at the candidate GSSP section at Ferguson Hill, Muller Canyon,

 Nevada, USA” by Ward et al 2007. *Palaeogeography, Palaeoecology, Palaeoclimatology* 273,

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**Tanner, L.H.** and Lucas, S.G., 2009. The Whitmore Point Member of the Moenave

 Formation: Early Jurassic dryland lakes on the Colorado Plateau, Southwestern USA.

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**Tanner, L.H.** and Lucas, S.G., 2009.Tetrapod trace fossils from lowermost Jurassic strata

 of the Moenave Formation, northern Arizona, USA. *Volumina Jurassica* 6, 99-108.

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 the Triassic-Jurassic boundary and the 40K decay constant bias. *Lithos* 110, 167-180.

**2007-2008**

**Tanner, L.H.**, Kyte, F.T. and Walker, A.E.\*, 2008. Multiple Ir anomalies in uppermost

 Triassic to Jurassic-age strata of the Blomidon Formation, Fundy basin, eastern Canada. *Earth*

 *and Planetary Science Letters* 274, 103-111.

Lucas, S.G. and **Tanner, L.H.**, 2008. Reexamination of the end-Triassic mass extinction. In:

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**Tanner, L.H.**, Smith, D.L., and Allan, A.\*, 2007. Stomatal response of swordfern to

 volcanogenic CO2 and SO2 from Kilauea volcano, Hawaii. *Geophysical Research Letters* 34:

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Lucas, S.G. and **Tanner, L.H.**, 2007. The nonmarine Triassic-Jurassic boundary in the

 Newark Supergroup of eastern North America. *Earth-Science Reviews* 84: 1-20.

**Tanner, L.H.** and Lucas, S.G., 2007. The Moenave Formation: Sedimentologic and

 stratigraphic context of the Triassic-Jurassic boundary in the Four Corners area, southwestern

 U.S.A. *Palaeogeography, Palaeoecology, Palaeoclimatology* 244: 111-125.

Lucas, S.G. and **Tanner, L.H.**, 2007.Tetrapod biostratigraphy and biochronology of the

 Triassic-Jurassic transition on the southern Colorado Plateau, USA. *Palaeogeography,*

#  *Palaeoecology, Palaeoclimatology* 244: 242-256.

**Tanner, L.H.** and Lucas, S.G., 2007. Origin of sandstone casts in the Upper Triassic Zuni

 Mountains Formation, Fort Wingate, New Mexico. *New Mexico Museum of Natural History*

 *and Science Bulletin* 40: 209-214.

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 isotope stratigraphy of the Lagronegro succession, southern Apennines, Italy. *New Mexico*

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# 2006

# Tanner, L.H., Lucas, S.G., and Zeigler, K.E., 2006. Late Triassic atmospheric oxygen: fusain,

#  geochemical models and evolutionary implications, *in* The Triassic-Jurassic Terrestrial

#  Transition, *New Mexico Museum of Natural History and Science Bulletin* 37: 4-11.

**Tanner, L.H**., Schiattarella, M., and di Leo, P., 2006. Carbon isotope record of Upper Triassic

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# Tanner, L.H., 2006. Synsedimentary seismic deformation in the Blomidon Formation (Norian-

#  Hettangian), Fundy basin, Canada, *in* The Triassic-Jurassic Terrestrial Transition, *New Mexico*

#  *Museum of Natural History and Science Bulletin* 37: 35-42.

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 Lower Jurassic of Utah-Arizona, *in* The Triassic-Jurassic Terrestrial Transition, *New Mexico*

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 **Tanner, L.H**., 2006. Triassic-Jurassic stratigraphic distribution of the theropod ichnogenus

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Lucas, S.G., Lockley, M.G., Hunt, and **Tanner, L.H**., 2006. Biostratigraphic significance of

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 Triassic-Lower Jurassic Dinosaur Canyon Member, Moenave Formation, northern Arizona.

 *Ichnos* 13, 1-9.

# 2005

Lucas, S.G., **Tanner, L.H**., Heckert., A.B., 2005. Tetrapod biostratigraphy and biochronology

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 Science, Bulletin 29, 84-94.

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# Tanner, L.H. and Kyte, F.T., 2005. Anomalous iridium enrichment in sediments at the

#  Triassic-Jurassic boundary, Blomidon Formation, Fundy basin, Canada. *Earth and*

#  *Planetary Science Letters* 240, 634-641.

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**2003-2004**

**Tanner, L.H.**, and Calvari, S., 2004. Unusual sedimentary deposits on the SE side of Stromboli

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*Karavage*, J. and **Tanner**, L.H., 1997. Integrated use of X-ray diffraction in an undergraduate

 geology curriculum. *Geol. Soc. Amer. Abstracts with Programs*, 29, no. 6, p. 454.

*Sorber*, S.P. and **Tanner**, L.H., 1997. Weathering trends of subaerial exposed alkaline basalt

 flows of Hualalai Volcano, Hawaii. *Geol. Soc. Amer. Abstracts with Programs*, 29, no. 1, p.

 82.

*Sorber*, S.P. and **Tanner**, L.H., 1997. Examination of feldspar weathering in alkaline olivine

 basalts by XRD analysis.Geol*. Soc. Amer. Abstracts with Programs*, 29, no. 6, p. 402.

*Clapp*, C.J. and **Tanner**, L.H., 1995. Sedimentology and cyclicity of Permian redbeds on Prince

 Edward Island, Canada. *Geol. Soc. Amer. Abstr. with Prog*., v. 27, p. 36.

*Hittle*, D.W. and **Tanner**, L.H., 1995. Fluvial record of the Upper Devonian-Lower Mississippian transition at Ricketts Glen State Park, Northeastern Pennsyvania. *Geol. Soc.*

 *Amer. Abstr. with Prog*., v. 27, p. 54.

***BOOK REVIEWS***

*Aeolian Sediments: Ancient and Modern*, reviewed in Journal of Sedimentary Research, vol.

 B64, p. 433 (1995).

 *Orbital Forcing and Cyclic Sequences*, reviewed in Journal of Sedimentary Research,vol. B64,

 p. 433 (1995).

 *Siliciclastic Sequence Stratigraphy*, reviewed in Northeastern Geology, vol. 17, p. 368 (1995).

***INVITED LECTURES/SEMINARS***

2017 Climate is NOT coming (it’s already here)—Liverpool Public Library Earth Day lecture, April 20, 2017

2006 Mystery of the Triassic-Jurassic boundary: Was it murder? Sigma Xi – Syracuse chapter Annual Banquet

2006 Sequence stratigraphy and paleosols of the Upper Triassic Chinle Group, Colorado Plateau, southwestern USA – Presented at Menoufia University, Shiben El Kom, Egypt

2003 Earth, Air, Fire, and Dinosaurs: Late Triassic Atmospheric Composition and

Dinosaurian Evolution – Presented at Le Moyne College

 2003 Record of Late Triassic Extinctions and Possible Mechanisms – Presented at:

 Syracuse University

 Northern Arizona University

 Northern Illinois University

 1996 Lower Jurassic Paleosols of the Fundy Basin, Canada: Record of Paleoclimate –

Presented at Lafayette College

***FUNDING***

**EXTERNAL GRANTS AWARDED AND PENDING**

 2018 NASA – NSPIRES Solar Systems Workings: Ferruginous Sedimentary

 Lithologies of the Bahariya Oasis, Western Desert, Egypt, as Analogs to Fe-

 Bearing Lithologies on Mars, Co-I (PI Mark Salvatore, NAU) $455,318

 (pending)

 2009 NSF-MRI Acquisition of a powder X-ray diffractometer for interdisciplinary student/faculty research (lead author; with A. O’Brien and D. Craig) $112,037

 2004 NSF Disciplinary Research (Ecological & Evolutionary Physiology): Effects of

 volcanogenic SO2 on leaf stomata and isotopic composition of organic matter

 (lead author; with J. Smarrelli) $14,320

 2000 NSF-CCLI Program: Multidisciplinary use of the SEM in Undergraduate Education (lead author; with T. Klinger, C. Venn) $73,682

 1995 NSF ILI-IG Program: Undergraduate geology curriculum enhancement with an

 X-ray diffractometer (lead author; with D. Braun, N. Gillmeister). $50,000

 1992 National Science Foundation: Faculty Enhancement Award for participation

in carbonate geology field seminar

**INTERNAL GRANTS AWARDED**

*Le Moyne College*

2013 Le Moyne College R & D Grant: Assessing changes in carbon storage during

secondary succession in a tropical montane forest: $2250 (funded)

2009 Le Moyne College R & D Grant: Completion of Volcano Book and Research on

 Ancient Volcanic Activity in Southern Italy: $2,330 (funded)

 2006 Provost’s Strategic Initiatives Fund: Monitoring Environmental Change in Iceland

(with D. Smith) $7,450

 2006 Le Moyne College R & D Grant: Examination of the Relationship Between Sea-

Level Change and Soil Formation in Upper Cretaceous Formations of Western Egypt: $2,220

2006 Le Moyne College R & D Grant: Examination of Late Triassic extinction events through analysis of carbon isotopes in strata of the southern Apennines, Italy $833

2005 Provost’s Strategic Initiatives Fund: Development of Le Moyne College Center

for the Study of Global Change (with D. Smith) $5,860

*Bloomsburg University*

2002 Research and Disciplinary Projects: Geochemical record of global events at the

Triassic-Jurassic boundary $8810

2001 Individual and Collaborative Award: Stratigraphy of sedimentary formations at the

Triassic-Jurassic boundary in the Four Corners region, southwestern USA. $700

2000 Research and Disciplinary Projects: Investigation of paleoclimate change at the

 Triassic-Jurassic boundary $5005

2000 Individual Faculty Research Award: The smoking gun: causes of extinction at the Triassic-Jurassic boundary $1090

1998 Special Initiatives Award: Faculty workshop in Scanning Electron Microscopy

 (lead author; with C. Venn) $3000

1998 Research and Disciplinary Projects: Study of volcaniclastic deposits associated with Mount Etna, Sicily $4245

1998 Application for Sabbatical Leave: 1999-2000 academic year

1997 Special Initiatives Award: Faculty/Student Investigation of the Owl Rock Formation, Chinle Group, Four Corners Region $2300

1997 Research and Disciplinary Projects: Interpretation of Triassic atmospheric

 composition and climate through isotopic analysis of caliche paleosols $4955

1997 Individual Faculty Research Grants: Origin of borate deposits in the Furnace Creek Formation, Death Valley, California $594

1997 Reassigned Time Award: Development of laboratory exercises utilizing the X-ray diffractometer Summer 1997

1996 SSHE Faculty Professional Development Council: Study of volcanic activity

 and volcaniclastic sedimentary deposits on Sicily $3265

1996 Special Initiatives Allocations: Geochemical analyses of samples from Death

 Valley, CA and Hawaii $2170

1995 Special Initiatives Allocations: Establishment of a fund for support of student research in the College of Arts and Sciences $3000

1995 Bloomsburg University Foundation Grant: Establishment of a Student Research

 Fund in the College of Arts and Sciences $2500

1995 Research and Disciplinary Projects: Measurement of rates of weathering of basalt

 on Hawaii $4900

1994 Special Initiatives Allocations: Analysis of the climate record of lake sediments of the Furnace Creek Formation, Death, California $1860

1994 Release Time Award: Statistical Analysis of facies in ancient fluvial deposits

 on Prince Edward Island, Canada

1993 Research and Disciplinary Projects: Interpretation of Mesozoic paleoclimates by

geochemical analysis of paleosols in the Basin $4966

1993 Special Initiatives Allocations: Statistical analysis of sequences of sedimentary

rocks on Prince Edward Island, Canada $894

1993 Individual Faculty Research Grant: Examination of paleosols of Mesozoic age in

the Fundy Basin and their relation to paleoclimate $766

 ***OTHER PROFESSIONAL ACTIVITIES***

**PROFESSIONAL ACTIVITIES**

Editorial Board: *Volumina Jurassica*

Editorial Board: *The Open Journal for Paleontology*

Editorial Board: *New Mexico Museum of Natural History Bulletin*

Reviewer for NSF paleontology and stratigraphy program

Reviewer for the Petroleum Research Fund (American Chemical Scoety)

Reviewer for journals: *Geology*, *Journal of Sedimentary Research, Earth & Planetary Science Letters, Palaeogeography, Palaeoclimatology, Palaeoecology, Geological Journal, Journal of African Earth Sciences, Journal of South American Geology, Sedimentary Geology, Catena,* and *Island Arc*

Book reviewer for Journal of Sedimentary Research and Northeastern Geology

Certified Professional Geologist: Commonwealth of Pennsylvania

 Session chair at IGC (2004)

Session chair at NEGSA meeting

Session judge at AAPG-SEPM

Campus representative for GSA

Campus representative for the Goldwater Scholarship competition

Editor, *Scholars*, journal of the SSHE

Member, Institute for Environmental and Toxicological Statistics

Organizer, Pennsylvania Sedimentary Geology Field Conference

**PROFESSIONAL MEMBERSHIPS**

American Geophysical Union

Council for Undergraduate Research

Geological Society of America

International Association of Sedimentologists

SEPM - Society for Sedimentary Geology

Society of Vertebrate Paleontology

Sigma Xi

National Center for Science Education