

FRANK ALDEMARO CORSETTI, Ph.D.

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December 1, 2018

UNIVERSITY DEGREES

University of California Davis, Geology, B. S. 1989 (High Honors)

University of California Santa Barbara, Geological Sciences, Ph.D. 1998

APPOINTMENTS

Chairperson of Earth Sciences Department, USC, August 2018-present

Professor, Earth Sciences, USC, November 2013-present

Associate Professor, Earth Sciences, USC, March 2006-November 2013

Assistant Professor, Earth Sciences, USC, September 2000-March 2006

UC President's Postdoctoral Scholar, UCSB, summer 1999-2000

Lecturer, UCSB, spring 1999

GRANTS

NASA 80NSSC19K0479 Exobiology, Investigating a Novel Role for Iron Redox Cycling in the Lithification of Microbial Mats and the Rise and Fall of Stromatolites in Earth History, \$994,274, three years, PI (2019)

JPL-SURP (Strategic University Research Partnerships Program), Automated, multispectral imaging workflow for returned sample science, \$34,940, one year, Co-I (2017)

NSF Earth Life Transitions, Linked geochemical/biotic response to massive volcanic CO₂ injection during the Triassic-Jurassic mass extinction, \$1,000,000, four years, PI (2013)

Agouon Institute, International Geobiology Summer Course, \$690,000, three years, PI (2013)

NSF EAGER, Do Mass Extinctions Have Diagenetic Consequences? Unique Early Diagenesis at the Triassic-Jurassic Boundary, \$32,837, one year, Co-I (2010)

Gordon and Betty Moore Foundation, Geobiology Summer Course, \$400,000, three years, PI (2010)

NASA 08-EXOB08-0094, Magnetic Susceptibility as a Biosignature; \$200,654, three years, PI (2009)

NASA 08-EXOB08-0026, A Community Education and Outreach Activity: International GeoBiology Summer Course; \$200,000; four years; Co-I (2009)

Agouon Institute, International Geobiology Summer Course, \$920,000, Co-I, four years (2009)

NASA ASTEP: Deep drilling and sampling via Auto-Gopher, full proposal: \$1,692,244, four years, Co-I (2008)

USC Undergraduate research fund: \$10,000, one year, PI (2008)

NSF # 0720888 International Geobiology Summer Course, \$120,000, one year, Co-I (2007)
USC Undergraduate research fund: \$7500, one year, Co-I (2007)
NSF #0447019 Investigating Early Triassic Ocean Chemistry during the Protracted Recovery from the Permo-Triassic Mass Extinction, \$150,000, three years, PI (2005)
NASA Exobiology #42000-62153: Paleobiosignatures on Mars and Early Earth: Complexity and Diagenesis, \$164,648, three years, PI (2004)
NSF #0418083: Collaborative Research: Biogeochemistry of the Snowball Earth \$109,426, three years, PI (2004)
USC Zumberge Fund, \$25,000, one year, PI (2004)
USC Undergraduate research fund: \$7500, one year, PI (2004)
NASA-JPL DRDF Complexity analysis and stromatolites as biosignatures? \$25,000, one year, Co-I (2003)

AWARDS AND ACCOLADES

Dickinson Medal, Society for Sedimentary Geology (2018)
General Education Teaching Award, Dornsife College of Letters, Arts, and Sciences, USC (2017-2018)
Fellow, Geological Society of America (2012)
Best paper, *Palaios* (2012)
General Education Teaching Award, Dornsife College of Letters, Arts, and Sciences, USC (2010-2011)
Fellow, USC Center for Excellence in Teaching (2008-2011)
Commendation for Service, SEPM (2008)
USC Mellon Award for Excellence in Mentoring (2007)
Best paper honorable mention, *Palaios* (2005)
Commendation for Service on GSA Graduate Student Grant Committee (2005)
W.P. Woodring Award, UCSB (1998)
G.K. Gilbert Award, UCSB (1994)

PUBLICATIONS

PEER-REVIEWED JOURNAL ARTICLES (CHRONOLOGIC, STUDENTS UNDERLINED)

SUBMITTED

Petryshyn, V.A., Sarah E. Greene, Alex Farnsworth, Robert Gammariello, Yadira Ibarra, Daniel J. Lunt, David J. Bottjer, Aradhna E. Tripathi and Frank A. **Corsetti**, Evidence for high seasonality but no temperature change across the end-Triassic extinction event. (submitted to *EPSL*)

2019

94. Chan, Marjorie A; Bowen, Brenda Beitler; **Corsetti**, Frank; Farrand, William; Law, Emily S; Newsome, Horton; Spear, John R; Thompson, David R; (2019) Exploring, Mapping, and Data Management Integration of Habitable Environments in Astrobiology, *Frontiers in Microbiology* v. 10 p. 147.

93. Junkins, Emily N; Stamps, Blake W; **Corsetti**, Frank A; Oremland, Ronald S; Spear, John R; Stevenson, Bradley S; (2019) Draft Genome Sequence of Picocystis sp. Strain ML, Cultivated from Mono Lake, California, Microbiological Resource Announcements v. 8 e01353-18
92. Wilmeth, D.T., **Corsetti**, F.A., Beukes, N.J., Awramik, S.M., Petryshyn, V.A., Spear, J.R., Celestian, A.J. Neoproterozoic (2.7 Ga) lacustrine stromatolite deposits in the Hartbeesfontein Basin, Ventersdorp Supergroup, South Africa: Implications for oxygen oases, Precambrian Research v. 320 p. 291-302.

2018

91. Dellinger, M., A. Joshua West, Guillaume Paris, Jess F. Adkins, Philip Pogge Von Strandmann, Clemens V. Ullmann, Rob A. Eagle, Pedro Freitas, Marie-Laure Bagard, Frank A. **Corsetti**, Justin B. Ries, Alberto Perez-Huerta, Anthony R. Kampf (2018) Li isotope composition of marine biogenic carbonates, <https://doi.org/10.1016/j.gca.2018.03.014>.
90. Medina Ferrera, E., Jake V. Bailey, Frank A. Corsetti, Michael Moldowan, Silvana M. Barbantini, David Caron, Joe Bryant-Hupperte (2018) Assessing biomarker syngeneity: An in situ approach using monoclonal antibodies, Organic Geochemistry, <https://doi.org/10.1016/j.orggeochem.2018.05.006>
89. Kraus E.A., Beeler S.R., Mors R.A., Floyd J.G., GeoBiology 2016, Stamps B.W., Nunn H.S., Stevenson B.S., Johnson H.A., Shapiro R.S., Loyd S.J., Spear J.R. and **Corsetti** F.A. (2018) Microscale Biosignatures and Abiotic Mineral Authigenesis in Little Hot Creek, California. Frontiers in Microbiology 9:997. doi: 10.3389/fmicb.2018.00997.
88. Liddy, Hannah M., Sarah J. Feakins, Frank A. **Corsetti**, Rowan Sage, Nancy Dengler, Xiaoming Wang (2018) Photosynthetic pathway of grass fossils from the upper Miocene Dove Spring Formation, Mojave Desert, California, PALEO-3, <https://doi.org/10.1016/j.palaeo.2017.10.019>.
87. Stamps, B.W., Nunn, H.S., Petryshyn, V.A., Oremland, R.S., Miller, L.G., Rosen, M.R., Bauer, K.W., Thompson, K.J., Tookmanian, E.M., Waldeck, A.R., Loyd, S.J., Johnson, H.A., Stevenson, B.S., Berelson, W.M., **Corsetti**, F.A., Spear, J.R., (2018) The Metabolic Capability and Phylogenetic Diversity of Mono Lake During a Bloom of the Eukaryotic Phototroph Picocystis strain ML. Applied Environmental Microbiology, doi:10.1128/AEM.01171-18
86. Wilmeth D.T., Johnson H.A., Stamps B.W., Berelson W.M., Stevenson B.S., Nunn H.S., Grim S.L., Dillon M.L., Paradis O., **Corsetti** F.A. and Spear J.R. (2018) Environmental and Biological Influences on Carbonate Precipitation Within Hot Spring Microbial Mats in Little Hot Creek, CA. Frontiers in Microbiology 9:1464. doi: 10.3389/fmicb.2018.01464

2017

85. Bradley, James A.; Daille, Leslie K.; Trivedi, Christopher B. Bojanowski, Caitlin L.; Stamps, Blake W.; Stevenson, Bradley S.; Nunn, Heather S.; Johnson, Hope A.; Loyd, Sean J.; Berelson, William M.; **Corsetti**, Frank A.; Spear, John R. (2017) Carbonate-Rich Dendrolitic Cones: Insights into a Modern Analogue for Incipient Microbialite Formation, Little Hot Creek, Long Valley Caldera, California, Nature

Publishing Group Biofilms and Microbiomes, <https://doi.org/10.1038/s41522-017-0041-2>.

84. Yager, J. A., West, A. J., **Corsetti**, F., Berelson, W. M., Rollins, N. E., Rosas, S., Bottjer, D. J., 2017, Duration of and decoupling between carbon isotope excursions during the end-Triassic mass extinction and Central Atlantic Magmatic Province emplacement. *Earth and Planetary Science Letters* v. 473, p. 227-236; doi: 10.1016/j.epsl.2017.05.031.

2016

83. Fedorchuk, N.D., Stephen Q Dornbos, Frank A **Corsetti**, John L Isbell, Victoria A Petryshyn, Julie A Bowles, Dylan T Wilmeth (2016) Early non-marine life: Evaluating the biogenicity of Mesoproterozoic fluvial-lacustrine stromatolites, *Precambrian Research*, v. 275 p. 105-118.
82. Ibarra, Y., and **Corsetti**, F.A. (2016) Lateral Comparative Investigation of Stromatolites: Astrobiological Implications and Assessment of Scales of Control, *Astrobiology*, v. 16 p. 271-281.
81. Ibarra, Y., **Corsetti**, F.A., Greene, S., and Bottjer, D. (2016) A microbial carbonate response in synchrony with the end-Triassic mass extinction across the SW UK, *Scientific Reports (Nature Publishing Group)* v. 6, 19808. <http://doi.org/10.1038/srep19808>.
80. Petryshyn, V.A., **Corsetti**, F.A., Frantz, C. M., Lund, S., Berelson, W. (2016) Magnetic susceptibility as a biosignature in stromatolites, *Earth and Planetary Science Letters (EPSL)*, v. 437 p. 66-75.
79. Petryshyn, V.A.,, Marisol Juarez Rivera, Heda Agić, Carie M. Frantz, Frank A. **Corsetti**, Aradhna E. Tripathi, Stromatolites in Walker Lake (Nevada, Great Basin, USA) record climate and lake level changes ~ 35,000 years ago, *PALEO-3*, v. 451, p. 140-151.
78. Thibodeau, A.M., Kathleen Ritterbush, Joyce A Yager, A Joshua West, Yadira Ibarra, David J Bottjer, William M Berelson, Bridget A Bergquist, Frank A **Corsetti** (2016) Mercury anomalies and the timing of biotic recovery following the end-Triassic mass extinction, *Nature Communications*, v. 7 doi:10.1038/ncomms11147.

2015

77. **Corsetti**, F.A., Ritterbush, K.A., Bottjer, D.J., Greene, S., Ibarra, Y., Yager, J.A., West, A.J., Berelson, W.M., Rosas, S., Becker, T.W., Levine, N.M., Loyd, S.J., Martindale, R.C., Petryshyn, V.A., Carroll, N.R., Petsios, E., Piazza, O., Pietsch, C., Stellmann, J.L., Thompson, J.R., Washington, K.A., Wilmeth, D.T., 2015. Investigating the Paleoeological Consequences of Supercontinent Breakup: Sponges Clean Up in the Early Jurassic. *The Sedimentary Record*, 13: 4-10
76. **Corsetti**, F.A. (2015) Life Durning Neoproterozoic Snowball Earth, *Geology*, v. 43 DOI: 10.1130/focus062015.1.
75. Frantz, C.M., V. Petryshyn, F. **Corsetti**. Grain trapping and binding by filamentous cyanobacterial and algal mats: Implications for stromatolite microfabrics through time, *Geobiology* v. 13 p. 409-423.

74. Ibarra, Y., **Corsetti**, F.A., Feakins, S.J., Rhodes, E.J., Kirby, M.E., Fluvial tufa evidence of Late Pleistocene wet intervals from Santa Barbara, California, U.S.A (2015), *PALAEO-3*, v. 422 p. 36-45.
73. Loyd, S, Corsetti, FA, Eagle, R., Hagadorn, JW, Shen, Y, Zhang, Xiaolin, Bonifacie, M, Tripathi, A (2015) Evolution of Neoproterozoic Wonoka-Shuram Anomaly-aged carbonates; evidence from clumped isotope paleothermometry, *Precambrian Research*, v. 264 p. 179-191.
72. Martindale, R., **Corsetti**, F. A., Bottjer, D.J., and James, N.P., (2015) Paleogeographic trends in Late Triassic reef ecology from Northeastern Panthalassa, *Earth-Science Reviews*, v. 142 p. 18-37..
71. Kathleen A. Ritterbush, David J. Bottjer, Frank A. **Corsetti**, A. J. West, W. M. Berelson, Silvia Rosas, Andean sponges reveal long-term benthic ecosystem shifts following the end-Triassic mass extinction, *PALAEO-3*, 420: 193-209.
70. Ritterbush, K.A. Ibarra, Y., Bottjer, D.J., **Corsetti**, F.A., Rosas, S., West, J.A., Berelson, W.B., Yager, J.A. 215, Marine Ecological State Shifts Following the Triassic-Jurassic Mass Extinction, In P.D. Polly, J.J. Head, and D.L. Fox (eds.), *Earth-Life Transitions: Paleobiology in the Context of Earth System Evolution*. The Paleontological Society Papers 21. Yale Press, New Haven, CT.
69. Wilmeth, D.T., Frank A. **Corsetti**, Nemanja Bisenic, Stephen Q. Dornbos, Tatsuo Oji, Sersmaa Gonchigdorj (2015) Punctuated Growth OF Microbial Cones Within Early Cambrian Oncoids, Bayan Gol Formation, Western Mongolia, *Palaios*, v. 30 p. 836–845.

2014

68. C. Frantz, V. Petryshyn, P. Marengo, W. Berelson, A. Tripathi, F. **Corsetti** (2014) Dramatic local environmental change during the Early Eocene Climatic Optimum detected using chemical analyses of a Green River Formation stromatolite, *PALAEO-3*, V. 105, p. 1-15. **(most downloaded paper from PALAEO-3 April-June 2014, via ScienceDirect)**
67. Ibarra, Y., **Corsetti**, F.A., Cheetham M., Feakins S.J. (2014) Were fossil spring-associated carbonates near Zaca Lake, Santa Barbara, California deposited under an ambient or thermal regime? *Sedimentary Geology*, V. 301, p. 15-25.
66. Ibarra, Y., **Corsetti**, F.A., Greene, S., and Bottjer, D. (2014) Microfacies of the Cotham Marble: A tubestone carbonate microbialite from the Upper Triassic, Southwestern United Kingdom, *Palaios*, V. 29, p. 1-15.
65. Kathleen A. Ritterbush, David J. Bottjer, Frank A. **Corsetti**, Silvia Rosas (2014) New Evidence On The Role Of Siliceous Sponges In Ecology And Sedimentary Facies Development In Eastern Panthalassa Following The Triassic/Jurassic Mass Extinction, *Palaios*,.
64. Stamps, BW., **Corsetti**, FA, Spear, JR, Stevenson, BS (2014) Draft genome of a novel Chlorobi member assembled by tetranucleotide binning of a hot spring metagenome, *Genome Announcements*, V. 2 p. e00897-14.
62. Tackett, L.S., Kaufman, A.J., **Corsetti**, F.A., Bottjer, D.J. (2014) Strontium Isotope Stratigraphy of the Gabbs Formation (Nevada): Implications for Global Norian-Rhaetian Correlations and Faunal Turnover, *Lethaia* , V. 47 p. 500-511.

2013

62. Bailey, J.V., **Corsetti**, F.A., Greene, S.E., Crosby, C.H., Liu, P., and Orphan, V.J. (2013) Filamentous sulfur bacteria preserved in modern and ancient phosphatic sediments: implications for the role of oxygen and bacteria in phosphogenesis, *Geobiology*, v. 11, p. 397-405.
61. Loyd, S.J., Marenco, P.J., Hagadorn, J.W., Lyons, T.W., Kaufman, A.J., Sour-Tovar, F., and **Corsetti**, F.A. (2013) Local $\delta^{34}\text{S}$ variability in ~580 Ma carbonates of northwestern Mexico and the Neoproterozoic marine sulfate reservoir, *Precambrian Research*, v. 222, p. 551-569.
60. Martindale, R.C., Krystyn, L., Bottjer, D.J., **Corsetti**, F.A., Senowbari-Daryan, B., and Martini, R., (2013) Depth transect of an Upper Triassic (Rhaetian) reef from Gosau, Austria: Microfacies and community ecology, *PALEO-3*, v. 376, p. 1-21.
59. Martindale R.C., Krystyn, L., **Corsetti**, F.A., and Bottjer, D.J. (2013) From fore reef to lagoon: Evolution of the Upper Triassic Dachstein carbonate platform on the Tennengebirge (Salzburg, Austria), *Palaios*, V. 28, p. 755-770.

2012

58. Greene, S.E., Martindale, R.C., Ritterbush, K.A., Bottjer, D.J., **Corsetti**, F.A., and Berelson, W.M., (2012) Recognizing ocean acidification in deep time: an evaluation of the evidence for acidification across the Triassic- Jurassic boundary. *Earth Science Reviews* 113, 72–93.
57. Greene, S.E., Bottjer, D.J., **Corsetti**, F.A., Berelson, W.M., & Zonneveld, J (2012) A subseafloor carbonate factory across the Triassic-Jurassic transition, *Geology*, v. 40 p. 1043-1046.
56. Loyd, S.J., **Corsetti**, F.A., Eiler, J., and Tripathi, A., (2012) Determining the diagenetic conditions of concretion formation: Assessing temperatures and pore waters using clumped isotopes, *Journal of Sedimentary Research*, v. 82, p. 1006-1016.
55. Loyd, S., **Corsetti**, F.A., Berelson, W., Lyons, T., and Hammond, D., (2012) A Novel Application of the Carbonate-Associated Sulfate Method: Insights into Varying Pathways of Microbial Mediation for Carbonate Concretions of the Miocene Monterey Formation, *Geochimica et Cosmochimica Acta*, v. 78, p. 77–98.
54. Loyd, S.J., Marenco, P.J., Hagadorn, J.W., Lyons, T.W., Kaufman, A.J., Sour-Tovar, F., and **Corsetti**, F.A. (2012) Sustained low marine sulfate concentrations from the Neoproterozoic to the Cambrian: Insights from carbonates of northwestern Mexico and eastern California: *Earth and Planetary Science Letters*, v. 339-340, p. 79-94.
53. Martindale R.C., Berelson, W.M., **Corsetti**, F.A., Bottjer, D.J., and West, A.J. (2012) Constraining carbonate chemistry at a potential ocean acidification event (the Triassic-Jurassic boundary) using the presence of corals and coral reefs in the fossil record, *PALEO-3*, v. 350–352, p. 114–123.
52. Martindale, R.C., **Corsetti**, F.A., Bottjer, D.J., and Senowbari-Daryan, B. (2012) Microbialite Fabrics and Diminutive Skeletal Bioconstructors in Lower Norian Summit Point Reefs, Oregon, U.S.A., *Palaios* v. 27, p. 489– 508.
51. Martindale, R., **Corsetti**, F.A., Bottjer, D., (2012) Platy coral patch reefs from eastern Panthalassa (Nevada, USA): Unique reef construction in the Late Triassic, *PALEO-3* v. 313–314, p. 41–58.

50. Mata, S.A., Harwood, C.L., Corsetti F.A., Stork., N.J., Eilers, K., Berelson, W.M, and Spear, J. (2012) Influences Of Gas Production And Filament Orientation on Stromatolite Microfabric, *Palaios*, v. 27, p. 206-219.
49. Mata, S.A., Corsetti, C.L., Corsetti, F.A., Awramik, S.M., Bottjer, D.J. (2012) Early Cambrian Anemone Burrows From The Upper Member Of The Wood Canyon Formation, Death Valley Region, United States: Paleocological And Paleoenvironmental Significance, *Palaios*, v. 27, p. 594-606.
48. Pepe-Raney, C., Berelson, W.M., Corsetti, F.A., and Spear, J. (2012) Cyanobacterial Construction of Hot Spring Siliceous Stromatolites in Yellowstone National Park, *Environmental Microbiology*, v. 14, p. 1182-1197.
47. Petryshyn, V.A., Corsetti, F.A., Berelson, W., Beaumont, W., and Lund, S. (2012) Stromatolite lamination frequency, Walker Lake, Nevada; Implications for stromatolites as biosignatures, *Geology*, v. 40, p. 499-502.

2011

46. Berelson, W.M., **Corsetti, F.A., Pepe-Raney, C.**, Hammond, D.E., Beaumont, W., and Spear, J.R. (2011) Hot spring siliceous stromatolites from Yellowstone National Park: assessing growth rate and laminae formation: *Geobiology*, Volume 9, Issue 5, 411–424.
45. Meister P., Reyes, C., Beaumont, W, Rincon, M., Collins, L., Berelson, W., Stott, L., **Corsetti, F.A.**, and Neelson, K. (2011) Calcium and magnesium-limited dolomite precipitation at Deep Springs Lake, California, *Sedimentology*, v. 58, p. 1810-1830.
44. Petryshyn, V.A. and **Corsetti, F.A.** (2011) Analysis of growth directions of columnar stromatolites from Walker Lake, western Nevada, *Geobiology*, Volume 9, Issue 5, pages 425–435.

2010

43. Grellet-Tiner, G., **Corsetti, FA**, and Buscalioni, A.D., 2010, The importance of microscopic examinations of eggshells: Discrimination of bioalteration and diagenetic overprints from biological features, *Journal of Iberian Geology*, v. 36, p 181-192.
42. Loyd, S. and **Corsetti, F.A.**, 2010, The Origin Of The Mm-Scale Lamination In The Neoproterozoic Lower Beck Spring Dolomite: Implications For Widespread, Fine-Scale, Layer-Parallel Diagenesis In Precambrian Carbonates, *Journal of Sedimentary Research*, v. 80, p. 678–687
41. Lund, S., Platzman, E., Thouveny, N., Camoin, G., **Corsetti, F.A.**, and Berelson, W.M., 2010, Biological control of paleomagnetic remanence acquisition in carbonate framework rocks of the Tahiti Coral Reef, *Earth Planet. Sci. Lett.*, v. 298, p. 14-22.
40. Petryshyn, V.A., Corsetti, F.A., Lund, S., Berelson, W. (2010) Magnetic susceptibility as a biosignature, *Journal of Earth Science*, v. 21, p. 329-332.
39. Wagstaff, K.L. and Corsetti, F.A., 2010, An evaluation of information-theoretic methods for detecting structural microbial biosignatures, *Astrobiology*, v. 10, p. 363-379.

2009

38. Bailey, J.V., Orphan, V.J., Joye, S.B., **Corsetti**, F. A., 2009, Chemotrophic microbial mats and their potential for preservation in the rock record, *Astrobiology*, v. 9, p. 843-859.
37. Berelson, W., **Corsetti**, F.A., Johnson, B., Vo, T., and Der, C., 2009, Carbonate-associated sulfate as a proxy for lake level fluctuations: a proof of concept for Walker Lake, Nevada, *J. Paleolimnology*, v. 42 p. 25-36.
36. **Corsetti**, F.A., 2009, Extinction before the Snowball, *Nature Geoscience* v. 2 p. 386-387.
35. Olcott-Marshall, **Corsetti**, F.A., Sessions, A., Marshall, C.P., 2009, Raman spectroscopy and biomarker analysis reveal multiple carbon inputs to a Precambrian glacial sediment, *Organic Geochemistry* v. 40, p. 1115–1123.

2008

34. Marenco, P.J., **Corsetti**, F.A., Kaufman, A.J., Bottjer, D.J., 2008. Environmental and diagenetic variations in carbonate associated sulfate: An investigation of CAS in the Lower Triassic of the western USA. *Geochimica et Cosmochimica Acta*, v. 72 p. 1570-1582.
33. Marenco, P.J., **Corsetti**, F.A., Hammond, D.E., Kaufman, A.J., Bottjer, D.J., 2008, Oxidation of pyrite during extraction of carbonate associated sulfate. *Chemical Geology*, v. 247, p 124-132.
32. Pruss, S, **Corsetti**, F.A., Fischer, W.W., 2008, Seafloor-precipitated carbonate fans in the Neoproterozoic Rainstorm Member, Johnnie Formation, Death Valley Region, USA, *Sedimentary Geology*, v. 207, p. 34-40.

2007

31. Bailey, J.V., Joye, S.B., Kalanetra, K.M., Flood, B.E., **Corsetti**, F.A., 2007, Evidence of giant sulfur bacteria in Neoproterozoic phosphorites, *Nature*, v. 445, p. 198-201.
30. **Corsetti**, F.A., Hagadorn, J.W., and Stewart, J.H., 2007 Neoproterozoic diamictite-cap carbonate succession and $\delta^{13}\text{C}$ chemostratigraphy from eastern Sonora, Mexico, *Chemical Geology*, v. 237, p. 129-142.
29. Kaufman, A.J., **Corsetti**, F.A., and Varni, M, 2007, The effect of rising atmospheric oxygen on carbon and sulfur isotope anomalies in the Neoproterozoic Johnnie Formation, Death Valley, USA, *Chemical Geology*, 237, p. 47-63.
28. Lorentz, N.J. and **Corsetti**, F.A., 2007, Another test for Snowball Earth, *Geology*, v. 35, p. 383.
27. Loyd, S.J, Becker, T.W., Conrad, C.P., Lithgow-Bertelloni, C., and **Corsetti**, F.A., 2007, Time-variability in Cenozoic reconstructions of mantle heat flow: plate tectonic cycles and implications for Earth's thermal evolution, *Proceedings of the National Academy of Sciences (USA)*, v. 104(36), p. 14266-14272.
26. Woods, A.D., **Corsetti**, F.A., Bottjer, D.J., 2007, Calcium Carbonate Seafloor Precipitates from the Outer Shelf to Slope Facies of the Lower Triassic (Smithian-Spathian) Union Wash Formation, California, U.S.A.: Sedimentology and Palaeobiologic Significance, *PALEO-3*, v. 252, p. 281-290.

2006

25. Bailey, J.V., **Corsetti**, F.A., Bottjer, D.J., and Marenco, K.A., 2006, Microbially mediated environmental influences on metazoan colonization of matground ecosystems: Evidence from the Lower Cambrian Harkless Formation, *Palaios*, v. 21, p. 215-226.
24. **Corsetti**, F.A., Kidder, D.L., and Marenco, P.J., 2006, Trends in oolite dolomitization across the Neoproterozoic-Cambrian boundary: A case study from Death Valley, California, *Sedimentary Geology*, v. 191, p. 135-150.
23. **Corsetti**, F.A., Olcott, A., and Bakermans, C., 2006, The biotic response to Snowball Earth, *PALAEO-3*, v.232, p. 114-130.
22. Pruss, S. B., D. J. Bottjer, **Corsetti**, F. A., and Baud, A., 2006, A global marine sedimentary response to the end-Permian mass extinction: Examples from southern Turkey and the western United States, *Earth-Science Reviews*, v. 78, p. 193-206.

2005

21. Clapham, M.E. and **Corsetti**, F.A., 2005, Tectonically driven deep valley incision in the terminal Neoproterozoic (Ediacaran) Johnnie Formation, eastern California, *Precambrian Research*, v. 141, p. 154-164.
20. **Corsetti**, F.A., Baud, A., Marenco, P.J., and Richoz, S., 2005, Summary of Early Triassic carbon isotope records, *Comptes Rendus Palevol*, v. 4 p. 405-418.
19. **Corsetti**, F.A. and Grotzinger, J.P., 2005. Origin of tube structures in Neoproterozoic post-glacial cap carbonates: Example from Noonday Dolomite, Death Valley, United States. *Palaios*, v. 20 p. 348-362. (Best paper *Palaios* 2005, runner up)
18. **Corsetti**, F.A. and Kaufman, A.J., 2005, The relationship between the Neoproterozoic Noonday Dolomite and the Ibex Formation: New observations and their bearing on 'snowball Earth', *Earth Science Reviews*, V. 73, p. 63-78.
17. Olcott, A. Sessions, A., **Corsetti**, F.A., Kaufman, A.J., and de Oliveira, F., 2005, Biomarker Evidence for Photosynthesis During Neoproterozoic Glaciation, *Science*, v. 310, p. 471-474.
16. Pruss, S.B., **Corsetti**, F.A., and Bottjer, D.J., 2005, The unusual sedimentary rock record of the Early Triassic: A case study from the southwestern United States, *PALAEO-3*, v. 222, p. 33-52.
15. Pruss, S. B., **Corsetti**, F. A., and D. J. Bottjer, 2005, Environmental trends of Early Triassic biofabrics: Implications for understanding the aftermath of the end-Permian mass extinction, *Developments in Palaeontology and Stratigraphy*, v. 20, p. 313-332.

2004

14. Bosak, T., Souza-Egipsy, V., **Corsetti**, F.A., and Newman, D.K., 2004, Microbially produced micron-scale porosity of carbonate rocks, *Geology*, v. 32, p. 781-784.
13. **Corsetti**, F.A., 2004, Carbon isotope stratigraphy of the Neoproterozoic-Cambrian transition: An introduction, *Paleontological Society Papers* v. 10 p. 17-34.
12. Lorentz, N.J, **Corsetti**, F.A., and Link, P. K., 2004, Seafloor precipitates and C-isotope stratigraphy from the Scout Mountain Member of the Pocatello

Formation, southeast Idaho: implications for Neoproterozoic Earth systems behavior, *Precambrian Research*, v. 130, p. 57-70.

11. Storrie-Lombardi, M.C., **Corsetti**, F.A., Grigolini, P., Ignaccolo, M., Allegrini, P., Galatolo, S., and Tinetti, G., 2004, Complexity Analysis to Explore the Structure of Ancient Stromatolites, *Chaos, Solitons, and Fractals*, v. 20, p. 139-144.

2003

10. **Corsetti**, F.A., Awramik, S.M., and Pierce, D., 2003, A complex microbiota from snowball Earth times: Microfossils from the Neoproterozoic Kingston Peak Formation, Death Valley, USA: *Proceedings of the National Academy of Sciences (USA)*, v. 100, p. 4399-4404 (Editors Choice, Science, 2003)
9. **Corsetti**, F.A. and Hagadorn, J.W., 2003, The Precambrian-Cambrian transition in the southern Great Basin, USA, *The Sedimentary Record (SEPM)*, v.1, p. 4-9.
8. **Corsetti**, F.A. and Kaufman, A.J., 2003 Stratigraphic investigations of carbon isotope anomalies and Neoproterozoic ice ages in Death Valley, California, *Geological Society of America Bulletin*, v.115 p. 916-932.
7. **Corsetti**, F.A., and Storrie-Lombardi, M., 2003, Lossless compression of stromatolite images: A biogenicity index?, *Astrobiology*, v. 3 p. 649-655.
6. DiFilippo, E., Hammond, D., and **Corsetti**, F.A., 2003, Geochemical constraints for coexisting CO₂ gas hydrate and calcite: Implications for sheet cracks, stromatolites, zebra and tepee-like structures, *Sedimentary Geology*, v. 160 p. 1-6.
- 5, Fraiser, M. and **Corsetti**, F.A., 2003, Neoproterozoic carbonate shrubs: Interplay of microbial activity and unusual environmental conditions in post-snowball oceans, *Palaios*, v. 18, no. 4-5, p. 378-387.

≥2002

4. Awramik, S. M., **Corsetti**, F. A., and Shapiro, R., 2000, Stromatolites and the pre-Phanerozoic to Cambrian history of the area south east of Death Valley, *Bulletin of the San Bernardino County Museum*, v. 47 no. 2, p. 65-74.
3. **Corsetti**, F.A., Awramik, S.M., Pierce D., and Kaufman, A.J., 2000, Carbon isotope stratigraphy of Neoproterozoic-Cambrian units, Southern Great Basin USA: Calibrating the temporal magnitude of disconformities in poorly fossiliferous successions, *International Geology Review*, v. 42, p 516-533.
2. **Corsetti**, F.A. and Hagadorn, J., 2000, The Precambrian-Cambrian Transition, Death Valley, USA, *Geology*, v. 28, p. 299-302.
1. **Corsetti**, F.A. and Kaufman, A.J., 1994, Chemostratigraphy of Neoproterozoic-Cambrian units, White-Inyo region, eastern California and western Nevada: Implications for global correlation and faunal distribution, *Palaios*, v. 9 p. 211-219.

PEER REVIEWED BOOK CHAPTERS

- Spear, J.R. and **Corsetti**, F.A. (2013) The evolution of geobiology in the context of living stromatolites, *Geological Society of America Special Paper 500*.
- Meister, P., Johnson, O., **Corsetti**, F.A., and Nealson, K., 2010, Magnesium Inhibition Controls Spherical Carbonate Precipitation in Ultrabasic Springwater (Cedars, California) and Culture Experiments, *Advances in Stromatolite Geobiology*,

Volume 131: Lecture Notes in Earth Sciences, Springer Berlin / Heidelberg, p. 101-121.

- Corsetti**, F.A., Link, P.K., and Lorentz, N.J., 2007 $\delta^{13}\text{C}$ Chemostratigraphy of the Neoproterozoic Succession near Pocatello, Idaho, in R.S. Lewis and P.K. Link, eds., Proterozoic Geology of Western North America and Siberia, Society for Sedimentary Geology Special Publication 86.
- Corsetti**, F.A., and Lorentz, N.J., 2006, On Neoproterozoic cap carbonates as chronostratigraphic markers, in Xiao, S. and Kaufman, A.J., editors, Neoproterozoic Geobiology, Topics in Geobiology, Springer, New York, v. 27, p. 273-294.
- Corsetti**, F.A., Lorentz, N.J., and Pruss, S.B., 2004. Formerly-Aragonite seafloor fans from Neoproterozoic Strata, Death Valley and Southeastern Idaho, United States: Implications for “cap carbonate” formation and snowball Earth. in: Jenkins, G., McMenamin, M., and Sohl, L. (Eds), The Extreme Proterozoic: Geology, Geochemistry, and Climate, American Geophysical Union Geophysical Monograph Series (146), Washington, DC, pp. 33-44.

PUBLISHED FIELD GUIDES AND OTHER PUBLISHED WORKS

- Bailey, J.V., Joye, S.B., Kalanetra, K.M., Flood, B.E., and **Corsetti**, F.A., 2007, Undressing and redressing Ediacaran embryos – reply to brief communication arising, Nature, doi:10.1038/nature05753.
- Link, P.K., **Corsetti**, F.A., and Lorentz, N.J., 2005, The Pocatello Formation and overlying strata, southeastern Idaho: Snowball Earth diamictites, cap carbonates, and Neoproterozoic isotopic profiles, in Peterson, J. and Deiler, C., editors, Geological Society of America Field Guide 6, p. 251-259.
- Corsetti**, F.A., Shapiro, R.S., and Awramik, S.M., 2002, Proterozoic-Cambrian of the southern Death Valley region: Microbialites, carbonate depositional environments, and Neoproterozoic glacial strata, in F.A. Corsetti, editor, The Proterozoic-Cambrian of the Great Basin and Beyond, Pacific Section Society for Sedimentary Geology (SEPM) Book 93, p. 1-20.
- Fraiser, M. and **Corsetti**, F.A., 2002, Neoproterozoic carbonate shrubs: A new cap carbonate facies, in F.A. Corsetti, editor, The Proterozoic-Cambrian of the Great Basin and Beyond, Pacific Section Society for Sedimentary Geology (SEPM) Book 93, p. 21-30.
- Lorentz, N.J., **Corsetti**, F.A., and Link, P. K., 2002, Seafloor precipitates and negative $\delta^{13}\text{C}$ values from the Scout Mountain Member of the Pocatello Formation, Southeast Idaho, in F.A. Corsetti, editor, The Proterozoic-Cambrian of the Great Basin and Beyond, Pacific Section Society for Sedimentary Geology (SEPM) Book 93, p. 43-50.
- Marengo, P. J., **Corsetti**, F.A., and Bottjer, D.L., 2002, Noonday tubes: Observations and reinterpretations based on better preservation from a new locality, in F.A. Corsetti, editor, The Proterozoic-Cambrian of the Great Basin and Beyond, Pacific Section Society for Sedimentary Geology (SEPM) Book 93, p. 31-42.
- Pruss, S.B., and **Corsetti**, F.A., 2002, Unusual aragonite precipitates in the Neoproterozoic Rainstorm Member of the Johnnie Formation, in F.A. Corsetti,

- editor, The Proterozoic-Cambrian of the Great Basin and Beyond, Pacific Section Society for Sedimentary Geology (SEPM) Book 93, p. 51-60.
- Rowland, S.M., and **Corsetti**, F.A., 2002, A brief history of research on the Precambrian-Cambrian boundary in the southern Great Basin, in F.A. Corsetti, editor, The Proterozoic-Cambrian of the Great Basin and Beyond, Pacific Section Society for Sedimentary Geology (SEPM) Book 93, p. 79-86.
- Shapiro, R.S., and **Corsetti**, F.A., 2002, Geology and paleontology across the Precambrian-Cambrian boundary, in S.M. Rowland, editor, Geology of the Southern Nevada Region, National Association of Geoscience Teachers (NAGT) Spring Field Conference, Las Vegas, Nevada, April 5-7, 2002, p. 21-38.
- Abolins, M., Oskin, R., Prave, T., Summa, C., and **Corsetti**, F.A., 2000, Neoproterozoic glacial record in the Death Valley region, California and Nevada, in Lageson, D.R.P., Stephen G.; Lahren, Mary M., ed., Great Basin and Sierra Nevada GSA Field Guide, Volume 2: Boulder, Colorado, Geological Society of America, p. 319-335.
- Corsetti**, F.A. and Hagadorn, J., 2000, The Precambrian-Cambrian Transition, Death Valley--Reply, *Geology*, v. 33, p. 958-959.

SYNERGISTIC ACTIVITIES

DEPARTMENTAL SERVICE (RECENT)

Chair, Department of Earth Sciences, 2018-present
Director of Graduate Program, Department of Earth Sciences 2015-2018
Graduate Student Progress committee

SUMMER COURSES

Co-Director, International Geobiology Summer Course, 2010-2016
Course Instructor, International Geobiology Summer Course, 2002-2008; 2017

EDITORIAL

Subject Editor: *Geobiology* (Blackwell) 2014-present
Associate Editor: *Journal of Sedimentary Research* (SEPM) 2010-present
Editorial Advisory Board: *Geobiology* (Blackwell)
Associate Editor: *Palaaios* (SEPM) 2006-2008

REVIEW /STEERING COMMITTEES

NASA Exobiology Review Panelist, February 2018
Internal Review of Environmental Studies Program (chair) 2014
Chair of External Review Committee for UC Riverside Undergraduate program in Earth Sciences, February 2011
NSF Future Directions in Geobiology and Low-Temperature Geochemistry, August 2010
NSF Geobiology/Low Temperature Geochemistry panel
NASA Exobiology Panel, 2004

PROFESSIONAL SOCIETY WORK

MEETING TECHNICAL PROGRAM COMMITTEES

Joint Technical Program Committee Geological Society of America Annual Meeting,
Baltimore, MD 2015
Joint Technical Program Committee Geological Society of America Annual Meeting,
Vancouver BC 2014
Technical Program Chairman (Posters), AAPG/SEPM National Meeting, Long Beach,
CA 2007

MEETING SYMPOSIA ORGANIZER/SESSION CHAIR

Symposia Organizer and Chair, American Geophysical Union Fall Meeting, San
Francisco (2016)
Symposia Organizer and Chair, Geological Society of America Annual Meeting,
Vancouver BC (2014)
Symposia Organizer and Chair, Astrobiology Science Conference, Atlanta GA (2012)
Session Chair, Geological Society of America Annual Meeting, Salt Lake City (2005)
Session Chair, Geological Society of America Annual Meeting, Denver (2004)

SOCIETY OFFICER

Chair Geobio-Geomicrobiology Division, Geological Society of America 2010-2012
Vice-Chair Geobio-Geomicrobiology Division, Geological Society of America 2008-2010
Secretary Geobio-Geomicrobiology Division, Geological Society of America 2006-2008
Past President, Pacific Section Society for Sedimentary Geology (SEPM) 2010-2011
President, Pacific Section Society for Sedimentary Geology (SEPM) 2009-2010
President-Elect, Pacific Section Society for Sedimentary Geology (SEPM) 2008-2009
Vice President, Pacific Section Society for Sedimentary Geology (SEPM) 2001-2002

OTHER

Field Trip Leader, Petrobras Field Trip to Green River Formation, August/September
2014
Instructor, Microbialite Short Course, Petrobras, Rio de Janeiro, August 2013
Instructor, Microbialite Short Course, ETH, Zurich, July 2012
Faculty advisor, Southern California Grad Student Geobiology Conference, USC, 2005
and 2011.
Board member, Agouron Institute International Geobiology Summer Course (2006-
present).
Kavli Frontiers in Science participant, National Academy of Sciences (2007)
Field excursion co-leader for Geological Society of America National meeting 2000,
2005.
Geological Society of America Research Grants Committee member-at-large,
2002-2005.

TEACHING AND ADVISING

GEOL 107 Oceanography (General Education)
GEOL 125 Evolution of the Earth (General Education)
GEOL 126 The History of Life on Earth: A View from the Museum (General Education)
GEOL 320 Surficial Processes (Major)
GEOL 510 Field Sedimentology (Grad)

GEOL 511 Carbonate Sedimentology (Grad)
GEOL 601 Seminar in Sedimentary Geology (Grad)

Voted Professor of the Year 2000-2001 by USC Earth Science students
Voted "leader of best field experience " 2000-2001 by USC Earth Science students
Sigma Gamma Omega Chapter (Earth Science Honor Society) faculty advisor,
2000-2011

Undergraduate research advisor for 11 students, 8 have presented results at the USC
Undergraduate Research Symposium, and 4 have won awards at the symposium.

WISE (Women in science and engineering) Mentor, summer 2003

Guest Instructor, Amherst College, February 2005

Guest Instructor, Stanford University, April 2005

Guest Instructor, UC Berkeley, November 2005

Guest Instructor, Cal State Chico, November 2014

Guest Instructor, University of the Pacific, February 2016

CURRENT AND FORMER GRADUATE STUDENTS

CURRENT STUDENTS (PRIMARY ADVISOR)

Alison Cribb (Ph.D.)

Reena Joubert (Ph.D.)

Scott Perl (Ph.D.)

Olivia Piazza (Ph.D.)

CURRENT STUDENTS (COMMITTEE MEMBER)

Nathan Carroll (Ph.D.)

Jayne Feyhl-Buslka (Ph.D.)

Amanda Godbold (Ph.D.)

Jun Hu (Ph.D.)

Claire Johnson (Ph.D.)

Adriane Jones (Ph.D., outside member, MEB)

Katya Larina (Ph.D.)

Hyejung Lee (Ph.D.)

Alle Lie (Ph.D., outside member, MEB)

Lei Qin (Ph.D.)

Jessica Stellmann (Ph.D.)

Jeffery Thompson (Ph.D.)

Shannon Ulrich (Ph.D., Colorado School of Mines)

Kirstin Washington (Ph.D.)

Hank Woolley (Ph.D.)

Becky Wu (Ph.D.)

Joyce Yager (Ph.D.)

Feng Zhu (Ph.D.)

FORMER STUDENTS AND CURRENT LOCATION

PRIMARY ADVISEES

Jake Bailey (Ph.D.), Associate Professor, U. of Minnesota

Carie Frantz (Ph.D.), Assistant Professor Weber State University, Utah
Yadira Ibarra (Ph.D.) Assistant Professor San Francisco State University
Nate Lorentz (M.S., Ph.D.), Assistant Professor, Los Angeles City College
Sean Loyd (Ph.D.) Assistant Professor, Cal State Fullerton
Pedro Marenco (Ph.D.), Associate Professor, Bryn Mawr College
Alison Olcott-Marshall (Ph.D.), Associate Professor, University of Kansas
Victoria Petryshyn (Ph.D.), Assistant Professor Teaching, USC Environmental
Studies Program.
Kiri Wagstaff (M.S.), Researcher, JPL
Dylan Wilmeth (Ph.D.), postdoctoral researcher, Equipe Géomicrobiologie, Institut
de Physique du Globe de Paris, France

COMMITTEE MEMBER

Roman Barco (Ph.D., outside member, MEB)
Laurie Barge (Ph.D.), JPL Research Scientist
Alyssa Bell (Ph.D.) LA County Museum of Natural History
Helen Bermudez Foley (Ph.D., outside member, MEB)
Rohit Bhartia (Ph.D.), JPL Research Scientist
Nicole Bonuso (Ph.D.), Associate Professor, Cal State Fullerton
Matthew Clapham (Ph.D.), Associate Professor, UC Santa Cruz
Steve Dornbos (Ph.D.), Associate Professor, University of Wisconsin, Milwaukee
Margaret Frasier (Ph.D.), Associate Professor, University of Wisconsin, Milwaukee
Oscar Gonzalez-Yajimovich (Ph.D.), Professor, Uni. Autónoma de Baja California
Sarah Greene (Ph.D.), Lecturer, U of Birmingham (UK)
Gerald Grellet-Tinner (Ph.D.)
Amanda Haddad (Ph.D.)
Cara Harwood (Ph.D., UC Davis) Outreach specialist, UC Davis
Tran Huynh (M.S.), Southern California Earthquake Center
Hannah Liddy (Ph.D.)
Katherine Marenco (Ph.D.), Lecturer Bryn Mawr College
Rowan Martindale (Ph.D.), Assistant Professor University of Texas Austin
Scott Mata (Ph.D.), lecturer, Cal State Fullerton
David Needham (Ph.D., outside member, MEB)
Chuck Pepe-Raney (Ph.D., Colorado School of Mines) Postdoctoral Researcher,
Cornell University
Carlie Pietsch (Ph.D.) Postdoc Paleontological Research Institute, Ithaca NY
Elizabeth Petsios (Ph.D.) Postdoc, USC
Catherine Jamet-Powers (Ph.D.)
Jingmai O'Conner (Ph.D.) Postdoctoral Researcher, Academia Sinica, Beijing
Sara Pruss (M.S., Ph.D.), Associate Professor, Smith College
Jamal Ramadan (Engineering, outside member, Ph.D.)
Kathleen Ritterbush (Ph.D.) Assistant Professor University of Utah
Everett Salas (Ph.D.), Chevron
Lydia Tackett (Ph.D.) Assistant Professor, North Dakota State University
Stan Teerman (Ph.D.), Chevron-Texaco
Caitlin Tems (Ph.D.) Assistant Professor, Cuesta College

Michael Tuma (Ph.D., outside member, EIB)
Shiqing Xu (Ph.D.)
Laura Zinke (Ph.D., outside member, MEB) Postdoctoral Researcher, UC Davis

INVITED TALKS (2004-PRESENT)

University of Colorado, Boulder (February 2004)
UCLA (March 2004)
Caltech (March 2004)
University of Maryland (October 2004)
Stanford University (January 2005 and April 2005)
Amherst College (February 2005)
UC Berkeley (November 2005)
University of Texas (March 2006)
California State University Long Beach (April 2006)
UC Riverside (May 2007)
Gordon Research Conference (July 2007)
California State University San Diego (Oct. 2008)
UCSB (January 2009)
American Society for Microbiology (Annual Meeting, May 2009, Philadelphia)
UC Davis (May 2009)
Committee on Origin and Evolution of Life, National Research Council (February 2010)
Northwestern University (October 2010)
MIT (May 2012)
University of Wisconsin, Milwaukee (May 2012)
UCLA (November 2012)
Poe Symposium, California State University Channel Islands (April 2013)
Geological Society of Peru, Lima, Peru (August 2014)
California State University, Chico (November 2014)
University of Illinois (February 2015)
California State University, Fullerton (September 2015)
Bryn Mawr College (November 2015)
UCLA (January 2016)
UC Davis (June 2016)
Montana State University (September 2016)
Weber State University Utah (September 2016)
Keynote Speaker, Peruvian Geologic Congress, Lima Peru (October 2016)
University of the Pacific (February 2017)
International Geobiology Summer Course, Caltech (June 2017)
Geological Society of America National Meeting (October 2017)
University of California Museum of Paleontology short course, Berkeley (February 2018)
Weber State University, Utah (March 2018)
International Geobiology Summer Course, Caltech (June 2018)
Geological Society of America National Meeting (November 2018)
University of Colorado, Boulder (April 2019)
Natural History Museum of Los Angeles (April 2019)

PROFESSIONAL MEETING ABSTRACTS
(CHRONOLOGIC, STUDENTS UNDERLINED)

2018 (as of October)

Paradis, O. P.; **Corsetti**, F. A.; Bardsley, A.; Berelson, W., Hammond, D. E.; Xu, X.; Walker, J. C., Celestian, A. (2018) Radial ooids from Great Salt Lake (Utah) as paleoenvironmental archives: Insights from radiocarbon chronology and stable isotopes, Lake Bonneville Geologic Conference, Salt Lake City, Utah, October 2018.

Yager, J.A., West, A.J., Trower, E.J., **Corsetti**, F.A., Fischer, W.F., A preliminary look at silicic acid concentrations in the Triassic ocean: $\delta^{30}\text{Si}$ of sponge spicules via SIMS. Southern California Geobiology Symposium, Riverside, CA, April 2018.

Yager, J.A., West, A. J., **Corsetti**, F.A., Berelson, W.M., Thibodeau, A. T., Pinedo-González, P., Rosas, B.S., Bergquist, B.A., Bottjer, D. J., The timing of redox changes, CAMP volcanism, and the end-Triassic extinction from the Levanto Section (Northern Peru). invited, Goldschmidt meeting August 2018.

2017

Corsetti, F.A., Yager, J.A., Ritterbush, K.A., Ibarra, Y., Thibodeau, A.M., Bergquist, B.A., West, A. J., Bottjer, D.J., Berelson, W.M., Rosas, S., Timing and alternative ecosystem states following the end-Triassic mass extinction (Nevada, Peru, England): Insights from Hg anomalies and their relationship to the Central Atlantic Magmatic Province. Geological Society of America Annual Meeting, October 2017.

Frantz, C.M., **Corsetti**, F.A., Petryshyn, V.A., Wagner, M., Mahseredjian, T., Wilmeth, D., and Piazza, O. (2017) Stromatolite formation during periods of dramatic hydrologic change in the Eocene Green River Formation revealed from trends in petrography and high-resolution stable isotope measurements, Geological Society of America Annual Meeting, October 2017.

Greene S, Petryshyn V, Farnsworth A, Gammariello R, Ibarra Y, Lunt D, Bottjer D, Tripathi A & **Corsetti** F, Evidence for Strong Seasonality in the Shallow Tethys Across the End-Triassic Mass Extinction, Goldschmidt Conference, 2017, Paris, France.

Larina, E., Bottjer, D.J., **Corsetti**, F.A., Berelson, W.M., Yager, J.A., West, A.J., New record of biotic response and of an unusual carbonate system for the end-Triassic mass extinction at Ferguson Hill, Nevada. Geological Society of America Annual Meeting, October 2017.

Mahseredjian, T., Wilmeth, D., **Corsetti**, F.A., Piazza, O., and Frantz, C.M. (2017) Intra-lamination isotopic variability in Green River Formation Stromatolites: Significance for stromatolite-based paleoclimate modeling of the Early Eocene Climatic Optimum, Geological Society of America Annual Meeting, October 2017.

Paradis, O. P.; **Corsetti**, F. A.; Bardsley, A.; Hammond, D. E.; Xu, X.; Walker, J. C. (2017) Radial ooids from Great Salt Lake (Utah) as paleoenvironmental archives: Insights from radiocarbon chronology and stable isotopes, American Geophysical Union Annual Meeting, New Orleans, LA December 2017.

Piazza (Paradis), O., **Corsetti**, F., Stamps, B., Stevenson, B., Bardsley, A., Hammond, D., Nunn, H., and Berelson, W., Unraveling enigmatic ooid formation in Great Salt

- Lake, Utah: Insights from Sequential 14C Chronology and Molecular Biology, 1st Geobiology Society Conference 2017. Banff, CAN.
- Piazza (Paradis), O., **Corsetti**, F., Stamps, B., Stevenson, B., Bardsley, A., Hammond, D., Nunn, H., and Berelson, W., Unraveling radial ooid formation in Great Salt Lake (Utah): Insights from Radiocarbon Chronology and Molecular Biology, Geological Society of America Annual Meeting, October 2017.
- Petryshyn, V.; Bailey, J.; Stamps, B. W.; Stevenson, B. S.; **Corsetti**, F. A. (2017) Passive Signals from Aggressive Methods: The Origin and Implications of Organic Material in a Carbonate Stromatolite, American Geophysical Union Annual Meeting, New Orleans, LA December 2017.
- Thibodeau, A, Bridget A. Bergquist, Frank A. **Corsetti**, Joyce A. Yager, A. Joshua West, David J. Bottjer, William M. Berelson, Linda Kah, Robert Hazen, and Shuhei Ono, Hg isotopes as tracers of depositional environments in marine sediments from the Precambrian to the Phanerozoic, Geological Society of America Annual Meeting, October 2017.
- Wilmeth, D.T., **Corsetti**, F.A., Berelson, W., Beukes, N., Awramik, S., Petryshyn, V. (2017). Gas Production Within Archean Stromatolites: Evidence for Ancient Metabolism, 1st International Geobiology Conference, 2017, Banff, CAN.
- Wilmeth, D.T., **Corsetti**, F.A., Berelson, W., Beukes, N., Awramik, S., Petryshyn, V. (2017). Gas Production Within Archean Stromatolites: Evidence for Ancient Microbial Metabolism, Geological Society of America Annual Meeting, October 2017.
- Wilmeth, D.T., **Corsetti**, F.A., Berelson, W., Beukes, N., Awramik, S., Petryshyn, V. (2017). Gas Production Within Stromatolites Across the Archean: Evidence For Ancient Microbial Metabolisms, American Geophysical Union Annual Meeting, New Orleans, LA December 2017.
- Wynn, P. Yager, J.A., West, A.J., Rollins, N.E., Berelson, W.M., **Corsetti**, F.A., Testing decarbonation temperature for $\delta^{13}\text{C}_{\text{org}}$ analyses in sedimentary sections. Poster, presented at the 10th Annual Los Angeles Basin Earth and Planetary Sciences Student Research Symposium, 2017, University of California, Los Angeles CA.
First place poster award.
- Wynn, P. Yager, J.A., West, A.J., Rollins, N.E., Berelson, W.M., **Corsetti**, F.A., Testing decarbonation temperature for $\delta^{13}\text{C}_{\text{org}}$ analyses in sedimentary sections. Poster, Southern California Geobiology Symposium 2017, Los Angeles, CA.
- Wynn, P.D., Yager, J.A., West, A.J., Rollins, N., Berelson, W.M., **Corsetti**, F.A., Testing liquid decarbonation temperature and time for $\delta^{13}\text{C}_{\text{org}}$ analyses in sedimentary sections. Geological Society of America Annual Meeting, October 2017.
- Yager, J.A., West, A.J., Berelson, W.M., **Corsetti**, F.A., Rosas, S., Bottjer, D.J., Exploring geochemical changes across a major Earth-Life Transition: The Levanto section in Northern Peru and the end-Triassic extinction. Poster, 1st International Geobiology Conference, 2017 in Banff, CAN.
- Yager, J.A., Berelson, W.M., West, A.J., **Corsetti**, F.A., Rosas, S., Bottjer, D.J., Shifting biogeochemical dynamics before the end-Triassic extinction. Poster, presented at the 10th Annual Los Angeles Basin Earth and Planetary Sciences Student Research Symposium, 2017, University of California, Los Angeles CA.
Second place poster award.

- Yager, J.A., Berelson, W.M., West, A.J., **Corsetti**, F.A., Rosas, S., Bottjer, D.J. Shifting biogeochemical dynamics during the Late Triassic and Early Jurassic: Insight from stable carbon and nitrogen records. Southern California Geobiology Symposium 2017, Los Angeles, CA.
- Yager, J. A., West, A.J., Bergquist, B.A., Thibodeau, A.M., Corsetti, F.A., Berelson, W.M., Bottjer, D.J., Mercury concentrations and isotopes from the Triassic-Jurassic boundary: a lithologic and depositional discussion. Geological Society of America Annual Meeting, October 2017.
- Yager, J.A., Berelson, W.M., West, A.J., Corsetti, F.A., Pinedo-Gonzalez, P., Rosas, S., Bottjer, D.J., Decreasing water column denitrification before the end-Triassic Extinction? Insight from stable nitrogen isotopes. Geological Society of America Annual Meeting, October 2017.
- Yager, J. A., West, A.J., Bergquist, B.A., Thibodeau, A.M., Corsetti, F.A., Berelson, W.M., Bottjer, D.J., Mercury anomalies as a proxy for large igneous provinces and effects on the carbon cycle in an age-constrained section spanning the end-Triassic extinction from Levanto, Peru. American Geophysical Union Annual Meeting, New Orleans, LA December 2017.

2016

- Bauer, K., et al., A Eukaryotic green alga, *Picocystis*, dominates Mono Lake, California in an algal bloom – Hints at cryptic oxygen cycle in euxinic waters, American Geophysical Union Annual Meeting, 2016, San Francisco, CA.
- Corsetti**, F.A., Berelson, W.M., Pepe-Ranney, C.P., Mata, S.A., Spear, J.R., Investigation of a Modern Incipient Stromatolite from Obsidian Pool Prime, Yellowstone National Park: Implications for Early Lithification in the Formation of Light-Dark Stromatolite Laminae, American Geophysical Union Annual Meeting, 2016, San Francisco, CA.
- Foster et al., Microbial and Metabolic Diversity of the Alkaline Hot Springs of Paoha Island: A Late Archean and Proterozoic Ocean Analogue Environment, American Geophysical Union Annual Meeting, 2016, San Francisco, CA.
- Floyd, J., et al., Assessing the Biological Contribution to Mineralized Cap Formation in the Little Hot Creek Hot Spring System, American Geophysical Union Annual Meeting, 2016, San Francisco, CA.
- Kraus, E., et al., The Biogenicity of Carbonate/Silica Structures in Little Hot Creek: Tenants and Builders, American Geophysical Union Annual Meeting, 2016, San Francisco, CA.
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Olcott, A., Li, C., Sessions, A., **Corsetti, F.A.**, and Peng, P., 2006, Biogeochemistry of Neoproterozoic Low Latitude Glaciations, International Goldschmidt Conference, Australia.

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- Lorentz, N.J. and **Corsetti**, F.A., 2005, Likely tectonism during Reed Dolomite deposition, White-Inyo Mountains, California and Nevada, GSA National Meeting, Salt Lake City.
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- Bonuso, N., **Corsetti**, F.A., and Grellet-Tinner, G., and Bottjer, D.J., 2004, Can compression algorithms help differentiate abiotic structures from biotic structures? GSA National Meeting, Denver.
- Clapham, M.E. and Corsetti, F.A., 2004, Tectonically driven deep valley incision in the terminal Neoproterozoic Johnnie Formation, eastern California. GSA National Meeting, Denver.
- (Invited; Pardee Symposium) **Corsetti**, F.A., 2004, Did enhanced lithification play a role in the proliferation of Early Triassic stromatolites? A case study from the Virgin Limestone Member, Moenkopi Formation, western Nevada. GSA National Meeting, Denver.
- Jamet., C. and **Corsetti**, F.A., 2004, Lower-Middle Cambrian thrombolites from the Carrara Formation, southern Great Basin, California: Paleoecological implications relative to biomerer. GSA National Meeting, Denver.
- Lorentz, N.J., **Corsetti**, F.A., and Stroup, C., 2004, Evidence of syn-depositional tectonism in the Neoproterozoic Reed Dolomite, White-Inyo mountains, eastern California. GSA National Meeting, Denver.
- Marengo, P.J., **Corsetti**, F.A., and Bottjer, D.J., Kaufman, A.J., and Baud, A., 2004, Sulfur Isotope Anomalies Across Permo-Triassic Boundary Sections in Turkey. GSA National Meeting, Denver.
- Olcott, A., **Corsetti**, F.A., Lorentz, N.J., Berelson, W., 2004, Reevaluating Gravimetric Determination of Carbonate Associated Sulfate Concentrations. GSA National Meeting, Denver.

(Invited) **Corsetti**, F.A., Pruss, S.B., Marenco, P.J., Kaufman, A.J., and Bottjer, D., 2003, Calcium carbonate seafloor fans from Neoproterozoic and Lower Triassic strata, Death Valley region and snowball Earth. GSA National Meeting, Seattle.

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- Corsetti**, F.A., Storrie-Lombardi, M., and Souza-Egipsy, V., 2003, Stromatolite complexity as a biosignature, *Astrobiology* Vol. 2, Num. 4, 629-630 (NASA Astrobiology PI meeting, Tempe, Arizona).
- Souza-Egipsy, V., Corsetti, F.A., Rye, R., and Nealson, K., Abiogenic layered carbonates associated with serpentinization: Why Martian “stromatolites” might not be fossils, European Space Agency Astrobiology Meeting, Madrid (November 2003).
- Lorentz, N.J., **Corsetti**, F.A., and Link, P.K., 2003, C-isotopes and seafloor precipitates from the Pocatello Formation, southeastern Idaho: Implications for Neoproterozoic Snowball Earth, GSA National Annual Meeting, Seattle.
- Marenco, P.J., **Corsetti**, F.A., and Bottjer, D.J., 2003, Killer Oceans of the Triassic, GSA National Annual Meeting, Seattle.
- Pruss, S.B., Bottjer, D.J., and **Corsetti**, F.A., 2003, The prolonged end-Permian Mass Extinction recovery: Anachronistic facies and anomalous environmental conditions, GSA National Annual Meeting, Seattle.
- Storrie-Lombardi, M.C., **Corsetti**, F.A., and Bottjer, D.J., 2003, Lossless compression as a complexity index in Paleobiology, GSA National Annual Meeting, Seattle WA.
- Storrie-Lombardi, M.C., Grigolini, P., Galatolo, S., Tinetti, G., Ignaccolo, M., Allegrini, P., and **Corsetti**, F.A., 2003, Advanced Techniques in Complexity Analysis for the Detection of Biosignatures in Ancient and Modern Stromatolites, *Astrobiology* v. 2, 630-631.

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- (Invited) **Corsetti**, F.A., Kaufman, A.J., and Marenco, P.J., 2002, A re-evaluation of the number and magnitude of Neoproterozoic ice ages, GSA South Central Section Meeting, Cedar City.
- DiFilippo, E., Hammond, D., and **Corsetti**, F.A., 2002, Geochemical constraints for coexisting CO₂ gas hydrate and calcite: Implications for sheet cracks, stromatolites, zebra and tepee-like structures, Abstracts with program, GSA National Annual Meeting, Denver.
- Fraiser, M. and **Corsetti**, F.A., 2002, Neoproterozoic carbonate shrubs: A bacterially produced cap carbonate lithofacies, Abstracts with program, GSA National Annual Meeting, Denver.
- Fraiser, M. and **Corsetti**, F.A., 2002, Paleoeecology of Neoproterozoic cap carbonate shrubs, CalPaleo Meeting, UCSB, April 2002, published in *Paleobios*, v. 22, supplement to no. 1, p. 2.
- Kaufman, A.J., **Corsetti**, F.A., and Marenco, P.J., 2002, A snowball’s chance in Death Valley: Reevaluation of the number and magnitude of Neoproterozoic ice ages, AGU Spring Meeting, Washington DC.

- Link, P. K., **Corsetti**, F.A., and Lorentz, N.J., 2002, Siliciclastic-carbonate cycles of the Neoproterozoic Blackrock Canyon Limestone, southeastern Idaho, Abstracts with program, GSA South Central Section Meeting, Cedar City.
- Lorentz, N.J., **Corsetti**, F.A., and Link, P. K., 2002, Another possible cap carbonate in the Neoproterozoic Pocatello Formation, Southeastern Idaho, Abstracts with program, GSA South Central Section Meeting, Cedar City.
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- Olcott, A., **Corsetti**, F.A., and Awramik, S.M., 2002, A new look at stromatolite form diversity, Abstracts with program, GSA National Annual Meeting, Denver.
- Corsetti, C.L., **Corsetti**, F.A., and Awramik, S.M., 2001, Large Early Cambrian burrows from the Wood Canyon Formation, Death Valley area, California, CalPaleo 2001, Los Angeles.

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- Corsetti**, F.A., Bottjer, D., and Dornbos, S.Q., 2001, The Cambrian Diagenetic Revolution, GSA National Meeting, Boston.
- (Invited) **Corsetti**, F.A., and Hagadorn, J.W., 2001, Terminal Neoproterozoic-Lower Cambrian transition II: White-Inyo Mountains, CA, GSA Cordilleran Section Annual Meeting, Universal City.
- (Invited) **Corsetti**, F.A., Stewart, J.H., and Hagadorn, J.W., 2001, Neoproterozoic diamictite-cap carbonate succession from eastern Sonora, Mexico, GSA Rocky Mountain and South-Central Sections, Joint Annual Meeting, Albuquerque.
- Corsetti**, F.A., Awramik, S.M., and Pierce, D., 2001, Life during Snowball Earth: Microfossils from the Kingston Peak Formation, Death Valley, USA, Earth Systems Process Meeting (joint GSA-GSL), Edinburgh, Scotland, p. A-125.
- (Invited-I gave the talk) Hagadorn, J.W., and **Corsetti**, F.A., 2001, Terminal Neoproterozoic-Lower Cambrian transition I: White-Inyo Mountains, CA, Abstracts with program, GSA Cordilleran Section Annual Meeting, Universal City.
- (Invited) Kaufman, A.J. and **Corsetti**, F.A., 2001, Carbon isotope evidence for enhanced surface oxidation following a potential Neoproterozoic ice age in Death Valley, California, Earth Systems Process Meeting (joint GSA-GSL), Edinburgh, Scotland.
- Marengo, P. J., **Corsetti**, F.A., and Bottjer, D.L., 2001, Enigmatic "tube-like" structures in the Noonday Dolomite: Constraints on possible hypotheses, Abstracts with program, GSA National Annual Meeting, Boston.

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- Awramik, S.M., **Corsetti**, F.A., and Pierce, D., 2000, Life during Snowball earth times, GSA National Annual Meeting, Reno.
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- Corsetti, F. A., 1998, Diagenesis of the Johnnie Oolite, Geological Society of America Cordilleran Section Meeting abstracts, Long Beach.**
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- Corsetti, F.A., 1996, Linear versus non-linear approaches to teaching geologic time, Paleobios, v. 17, p. 3.**
- Corsetti, F.A., 1994, Harlaniella as an ecomorph? Significance to the placement of the Proterozoic Cambrian Boundary, Geological Society of America Cordilleran section meeting, San Bernardino.**
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- Corsetti, F.A, S.M. Awramik, D.L. Pierce, 1994, Stromatolites, microfossils, and age constraints on Proterozoic- Lower Cambrian sediments of the Death Valley region, eastern California, USA, International Stromatolite Symposium, Laughlin, NV, p. 22-23.**
- Corsetti, F.A., 1993, Is most of the Tommotian missing in the White-Inyo region, eastern California?, Geological Society of America Cordilleran/Rocky Mountain combined section meeting abstracts, Reno.**
- Corsetti, F.A., 1993, Locating major stratigraphic breaks in unfossiliferous sections using carbon-isotope stratigraphy, Precambrian-Cambrian units, eastern California: Paleobios, v. 14, p. 3.**
- Rowland, S., **Corsetti, F.,** and McMenemy, M., 1993, Preliminary Carbon Isotope chemostratigraphy from Caborca, Mexico, Geological Society of America Cordilleran/Rocky Mountain combined section meeting abstracts, Reno.
- Corsetti, F.A., and Kaufman, A.J., 1992, Chemostratigraphy of Neoproterozoic-Cambrian Units, White-Inyo Region, eastern California: New correlations between China, Siberia, and the Great Basin, Paleobios, v. 14, p. 2.**
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