



PRINCETON UNIVERSITY
DEPARTMENT OF GEOSCIENCES
SENIOR THESIS (Class of '18)



- William A. Atkinson** The Role of Soil Minerals in Terrestrial Carbon Storage:
Linking Field and Laboratory Studies with Complimentary
Spectroscopy Methods
S. Myneni / T. Onstott
- Keo Z. Chan** Nitrogen Isotopic ($\delta^{15}\text{N}$) Variation with Fish Length
In the Global Ocean: A Potential Indicator for Global
Anthropogenic Impact
B. Ward / D. Sigman
- Maricela Coronado** Underground Hydrocarbon Pipelines in the United States,
And Their Relationship to the Concentration of Arsenic in
Groundwater
F. Simons / T. Onstott
- Walker S. Darling** Ground-truthing Coral as a Proxy: An Examination
Of the $\delta^{15}\text{N}$ of Four Coral Species Across the
Bermuda Pedestal
D. Sigman / B. Ward
- Donald E. Martocello** H-Aquil: A Chemically Defined Cell Culture Medium for
Trace Metal Studies in *Vibrios* and Other Marine Heterotrophic
Bacteria
F. Morel / B. Ward
- Erin A. McCabe** Mesoscale Processes' Effects on Spatial and Temporal
Variability in the Ocean's Biological Carbon Pump
L. Resplandy / B. Ward
- Shayne P. McKenna** An Analysis of *In Situ* X-Ray Diffraction of SiO_2 Under
Shock Compression
T. Duffy / A. Rubin
- Joshua Murray** A Deterministic Approach to Geochemical Stratigraphy
B. Schoene / A. Maloof
- Henry M. Ogilby** The Role of Encapsulin Nanocompartments in Anaerobic
Ammonium Oxidation
B. Ward / X. Zhang



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Nicole E. Rinaldi

A Ground-Truthing Study of the Nitrogen Isotopic
Composition of Enamel Bound Organic Matter in
Modern Bison Teeth

D. Sigman / J. Higgins

Hannah T. Tandy

Evaluating Carbon and Climate Sensitivities of the
NOAA/GFDL Earth System Model ESM2MB to Forcing
Perturbations During the Paleocene-Eocene Thermal Maximum

G. Keller / E. Shevliakova (EEB)