Stanford

# Thomas Boag

Ph.D. Student in Geological Sciences

## Bio

### EDUCATION AND CERTIFICATIONS

- MSc, University of Toronto , Earth Science (2015)
- BSc, Queen's University , Geological Science (2014)

### STANFORD ADVISORS

- Erik Sperling, Doctoral (Program)

## Research & Scholarship

### CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research focuses on the origins and early evolution of macroscopic animal life and the changes to both the geosphere and biosphere during the Neoproterozoic to Paleozoic transition; specifically the Ediacaran Period (635-541 Ma). Due to the paucity of fossil evidence left by Earth's earliest animals in deep time, I look to incorporate paleo- ecological, geochemical, and database analyses with studies of extant animal physiology to better understand the Ediacaran biostratigraphic record.

### LAB AFFILIATIONS

- Erik Sperling, Historical Geobiology (9/1/2015)

## Teaching

### COURSES

**2016-17**

- Introduction to Geology: GS 1 (Win)

## Publications

### PUBLICATIONS

- **Environmental disturbance, resource availability, and biologic turnover at the dawn of animal life** *EARTH-SCIENCE REVIEWS*
  Muscente, A. D., Boag, T. H., Bykova, N., Schiffbauer, J. D.
  2018; 177: 248–64
- **Exceptionally preserved fossil assemblages through geologic time and space** *GONDWANA RESEARCH*
  Muscente, A. D., Schiffbauer, J. D., Broce, J., Laflamme, M., O'Donnell, K., Boag, T. H., Meyer, M., Hawkins, A. D., Huntley, J., McNamara, M., MacKenzie, L. A., Stanley, G. D., Hinman, et al
  2017; 48: 164–88

- **Ediacaran distributions in space and time: testing assemblage concepts of earliest macroscopic body fossils** *PALEOBIOLOGY*
  Boag, T. H., Darroch, S. A., Laflamme, M.
  2016; 42 (4): 574-594
- **A mixed Ediacaran-metazoan assemblage from the Zaris Sub-basin, Namibia** *PALAEOGEOGRAPHY PALAEOCLIMATOLOGY PALAEOECOLOGY*
  Darroch, S. A., Boag, T. H., Racicot, R. A., Tweedt, S., Mason, S. J., Erwin, D. H., Laflamme, M.
  2016; 459: 198-208
- **Biotic replacement and mass extinction of the Ediacara biota.** *Proceedings. Biological sciences / The Royal Society*
  Darroch, S. A., Sperling, E. A., Boag, T. H., Racicot, R. A., Mason, S. J., Morgan, A. S., Tweedt, S., Myrow, P., Johnston, D. T., Erwin, D. H., Laflamme, M.
  2015; 282 (1814)
- **New Ediacaran fossils from the uppermost Blueflower Formation, northwest Canada: disentangling biostratigraphy and paleoecology** *Journal of Paleontology*
  Carbone, C. A., Narbonne, G. M., Macdonald, F. A., Boag, T. H.
  2015; 89 (2): 281-291