

## Ian David Bastow

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### Current Employment

2005-present **University of South Carolina**

- Post Doctoral Research Associate, Department of Geological Sciences.

### Education

2001 – 2005 **University of Leeds**

- NERC Ph.D. studentship, supervised by Dr. Graham Stuart and Prof. Mike Kendall. Thesis: “Lithospheric seismic structure in a region of incipient continental breakup: northern Ethiopian rift”.

2000 – 2001 **University of Edinburgh**

- Master of Research in the Natural Environment (MRes with distinction). Thesis title: A comparison of seismic moment tensors to tectonic deformations in the north Pacific.

1996 – 2000 **University of Edinburgh**

- Geophysics degree (BSc. 1<sup>st</sup> Class Hons.). Final year modules included: potential field theory, geomagnetism, seismology, exploration seismology, palaeomagnetism, deformation processes. Final year projects: 1) Improved estimation of transfer functions in the magnetotelluric dead band. 2) A comparison of seismic moment tensors to tectonic deformations in the Aegean.

1989 – 1996 **Ossett School**

**Ossett, West Yorkshire, U.K.**

- GCSE: English, French, economics, geography, double sciences, mathematics and computer studies.
- A-Level: Mathematics, physics, geography.

### General Research Skills

- Computational experience with UNIX (SOLARIS), LINUX, XWINDOWS, MS WINDOWS, programming in FORTRAN, C-shell scripting, GMT (Generic Mapping Tools), HTML, LATEX, SAC2000.
- I have eight months of seismic field experience working in Ethiopia permissioning station locations, deploying and servicing Güralp CMG-3TD, 40TD and 6TD instruments. I am familiar with associated Güralp seismological software such as SCREAM and SHOUT. In 2005 I gained further fieldwork experience with the Sierra Nevada EarthScope Project.
- I have given oral and poster presentations of my research at international conferences (see below).

### Awards and Prizes

- 1<sup>st</sup> prize: best NSF Margins student presentation at AGU, 2004.
- 1<sup>st</sup> prize: best oral presentation at the British Geophysical Association conference 2004.
- 1<sup>st</sup> prize: best MRes student oral presentation at the Edinburgh Graduate School conference 2001.
- Awarded Thomas Cowan Scholarship (University of Edinburgh) 1998/9 and 1999/00 for socially outgoing students of high academic standing (£1200 p/a).
- Headmaster’s prize for excellence in GCSE examinations (Ossett School, 1994).
- Prize for good performance in computer sciences (Ossett School, 1994).

### Activities and Interests

- Having swum competitively whilst at school, I continue to train 3-4 times a week. In April 2006 I completed the University of South Carolina “swim for life” 100-mile challenge.
- I enjoy running and hill walking and recently completed a 6 day trek across the Simien Mountains in Ethiopia (including Ras Dashen ~4600m).
- I enjoy raising money for charity and in 2005 I helped to raise around £900 for cancer Research UK.

### Work Experience

- Assistant data analyst for Dr. Roger Banks (School of Geosciences, University of Edinburgh) for 5 weeks during the summer vacation of 1999. The work involved the complex demodulation of time series data in the magnetotelluric dead band.
- In the summer of 1999 I worked for 6 weeks for Prof. John Underhill using Schlumberger’s seismic interpretation package “Geoquest” as part of the Edinburgh University, School of Geosciences

seismic and sequence stratigraphy research group. The work involved the interpolation of horizons in oil fields in the North Sea.

- I worked as a lab demonstrator at Leeds for undergraduate and masters courses including: fundamentals of geophysics, environmental and engineering geophysics and inverse theory.

## Publications

- **Bastow, I.D.**, Stuart, G.W., Kendall, J.-M. and Ebinger, C.J., 2005, Upper mantle seismic structure in a region of incipient continental breakup: northern Ethiopian rift, *Geophys. J. Int.* 162, 479-493. doi: 10.1111/j.1365-246X.2005.02666.x.
- Kendall, J.-M., Stuart, G.W., Ebinger, C.J., **Bastow, I.D.**, and Keir, D., Magma assisted rifting in Ethiopia, *Nature*, doi:10.1038/nature03161, 2005.
- Stuart, G.W., **Bastow, I.D.** and Ebinger, C.J., 2006, Crustal structure of the Northern Main Ethiopian Rift from receiver function studies, Geological Society of London, Special Publication (In Press).
- Ayele, A., Stuart, G.W., **Bastow, I.D.**, Keir, D., 2006, The August 2002 earthquake sequence in north Afar: insights into the neotectonics of the Danakil microplate, *J. Afr. Earth Sci.* (In Press).
- Kendall, J.-M., Pilidou, S., Keir, D., **Bastow, I.D.**, Stuart, G.W. and Ayele, A., 2006, Mantle upwellings, melt migration and the rifting of Africa: Insights from seismic anisotropy, Geological Society of London, Special Publications (In Press).

## Recent Conference Proceedings and Presentations

- **Bastow, I.D.**, Stuart, G.W., Kendall, J.-M., Ebinger, C.E., Ayele, A. (2004), AGU, T41G-01. (**FIRST PRIZE – Best oral presentation, NSF margins**).
- Pilidou, S., Kendall, M., Stuart, G., **Bastow, I.D.** (2004), AGU, T33A-1347.
- **Bastow, I.D.**, Stuart, G.W., Kendall, J.-M., Ebinger, C.E. Ayele, A. Cornwell, D.G., Maguire P.K.H. (2004), International Conference on The East African Rift System: Evolution, Resources and Environment. June 20-24, Addis Ababa, Ethiopia.
- **Bastow, I.D.** (2004), The Yorkshire Geological Society - Rifting in Ethiopia, East Africa.
- **Bastow, I.D.**, Stuart, G.W., Kendall, J.-M., Ebinger, C.E. Ayele, A. Cornwell, D.G., Maguire P.K.H. (2004), The BGA Postgraduate Research in Progress in Geophysics, Leeds, UK. (**FIRST PRIZE – Best oral presentation**).
- **Bastow, I.D.**, Stuart, G.W., Kendall, J.-M., Ebinger, C.E. (2003), The BGA Postgraduate Research in Progress in Geophysics, Leeds, UK.
- **Bastow, I.D.**, Stuart, G.W., Kendall, J.-M., Ebinger, C.E. Ayele, A. Cornwell, D.G., Maguire P.K.H. (2002), EGS/AGU Joint Assembly, Nice (solicited).
- **Bastow I.D.** & Main I.G. The Edinburgh Graduate School Conference (2001), (**FIRST PRIZE - Best MRes oral presentation**).
- Mackenzie, G.D., **Bastow, I.D.**, Cornwell, D.G., Kendall, J.-M., Maguire, P.K.H., Stuart, G.W., Ebinger, C.J. (2004), EGU04-A-04087 (poster).
- **Bastow, I.D.**, Stuart, G.W., Kendall, J.-M., Ebinger, C.E., Ayele, A. & EAGLE Working Group (2003), AGU, S51C-0063 (poster).
- **Bastow, I.D.**, Stuart, G.W., Kendall, J.-M. & EAGLE Working Group (2003), The Deep Earth: Theory Experiment and Observation; Euroconference on Multi-Disciplinary Studies of the Mantle and Core (poster).
- **Bastow, I.D.**, Stuart, G.W., Kendall, J.-M. & EAGLE Working Group (2003), Gordon Conference on the Deep Earth, South Hadley, Mass, US (poster).

## Referees

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