

Papers, books & book chapters*Published*

Awdal A.H., Healy D. & Alsop G.I. 2014. *Geometrical analysis of deformation band lozenges and their scaling relationships to fault lenses*. Journal of Structural Geology, vol 66, pp. 11-23.

Birkel, C., Tetzlaff, D., Ali., & G., Soulsby, C. 2014. *Assessing the impacts of hydropower regulation on the flow characteristics of a large Atlantic salmon river system*. River Research and Applications.

<http://dx.doi.org/10.002/rra2656>

Healy, D., Neilson, J., Haines, T.J., Michie, E., Timms, N. & Wilson, M. 2014. *An investigation of porosity–velocity relationships in faulted carbonates using outcrop analogues*. Special Publication - Geological Society of London, <http://dx.doi.org/10.1144/SP406.13>

Rittersbacher, A., **Howell J.A.** & Buckley S.J. 2014. *Analysis of fluvial architecture in the Blackhawk Formation, Wasatch Plateau, Utah using large 3D photorealistic models*. Journal of Sedimentary Research, 2014, v. 84, 72–87.

Eide C.H.E. & **Howell J.A.** 2014. *Distribution of discontinuous mudstone beds within wave-dominated shallow-marine deposits: Star Point and Blackhawk Formations, eastern Utah*. AAPG Bulletin, v. 98, no. 7, pp. 1401–1429.

Hurst, A. and Morton, A.C. 2014. *Provenance models: the role of sandstone mineral–chemical stratigraphy*. Scott, R. A., Smyth, H. R., Morton, A. C. & Richardson, N. (eds). Sediment Provenance Studies in Hydrocarbon Exploration and Production. Geological Society, London, Special Publications, 386, 7–26.

Pellitero, R. 2014. *Fuentes Carrionas geomorphological map and geomorphological landscapes*. Journal of Maps, 10 (2): 313-323

Pereira, E., Ruchkys, U. & **Pellitero, R.** 2014. *Modelagem da geodiversidade na área de proteção ambiental Sul da Região Metropolitana de Belo Horizonte-MG*. Geonomos, 21, 97-101.

Watkins, H., Bond, C.E. & Butler, R.W.H. 2014. *Identifying multiple detachment horizons and an evolving thrust history through cross-section restoration and appraisal in the Moine Thrust Belt, NW Scotland*.

Journal of Structural Geology, <http://dx.doi.org/10.1016/j.jsg.2014.05.001>

In Press/Accepted

Ashmore, D.W. and Bingham, R.G. *Antarctic subglacial hydrology: current knowledge and future challenges*, Antarctic Science.

Pellitero, R., Manosso, F. & Serrano, E. *Mid and large scale geodiversity calculation in Fuentes Carrionas (NW Spain) and Serra do Cadeado (Paraná, Brazil). Methodology and application for land management*. Geografiska Annaler, Series A Physical Geography. <http://dx.doi.org/10.1111/geoa.12057>

In Press/Accepted (continued...)

Martin, S., Ghiraldi, L., **Pellitero Ondicol, R.** & Reynard, E. *Multi-scale web mapping for Geoheritage Visualisation and Promotion*. Geoheritage. <http://dx.doi.org/10.1007/s12371-014-0102-3>

Rawlinson, N., Arroucau, P., Musgrave, R., Cayley, R., Young, M. and Salmon, M. 2014. *Complex continental growth along the proto-Pacific margin of East Gondwana*, Geology.

Rawlinson, N., Fichtner, A., Sambridge, M. and Young, M. 2014. *Seismic tomography and the assessment of uncertainty*, Advances in Geophysics.

Pilia, S., **Rawlinson, N.**, Direen, N. G., Reading, A. M., Arroucau, P., Cayley, R., Pryer, L. and Duffett, M. 2014. *Linking mainland Australia and Tasmania using ambient seismic noise tomography: implications for the tectonic evolution of the east Gondwana margin*, Gondwana Research.

Funding

Dave Healy and **Dave Cornwell** have secured funding from Hurricane Energy (£36k) for a field-based pilot project on Lewis & Harris. The aim is to produce an integrated geological and geophysical characterisation of fracture zones in gneissic basement.

John Howell reports that SAFARI Phase 3 is now funded with £900k for three years, that will be split between UoA and University of Bergen. There will be 3-4 new PhD students working in Aberdeen on this project.

Chris Soulsby successfully secured funding (ca. £65K) for a PhD studentship through the MarCRF (Marine Collaboration Research Forum) partnership between the Scottish Government's Marine Science Scotland (MSS) and the University. The project on Understanding the influence of climate change on Atlantic salmon: opportunities for mitigation will be co-supervised by Dr Iain Malcolm at the MSS Freshwater Laboratory. The studentship will start in October.

Thomas Wild was awarded funds by the UKCCSRC to attend the 1st North Sea Young CCS Researchers Meeting, in Rotterdam on the 18th June 2014 and the 7th Dutch CCS Symposium, where he presented the First Declaration of Amsterdam alongside other early career researchers. He also contributed to conference blogs for both events. (<https://ukccsrc.ac.uk/news-events/blog/1st-north-sea-young-ccs-researchers-meeting-rotterdam-18th-june-2014>).

Conferences, Presentations

Dave Healy gave a talk at the Geometry & Growth of Normal Faults conference held at the Geological Society of London, at the end of June, entitled: *Porosity around normal fault zones: Why the gaps matter*.

The following presentations were made at the Reservoir Quality conference held at the Geological Society of London (May 28th-30th):

- **A. Awdal, D. Healy & G.I. Alsop**. *Reservoir quality of Kurra Chine and Sehkaniyan Formations, Zagros fold and thrust belt, Kurdistan region of Iraq*.
- **N. Farrell, D. Healy & M. Heap**. *Effects of reservoir quality of geomechanical risk*.
- **T. Haines, E. Michie, J. Neilson, D. Healy, G. I. Alsop, N. Timms, M. Wilson & A. Aplin**. *Porosity & pore network modifications into carbonate hosted normal fault zones and the impact on permeability*.
- **H. Watkins, R. Butler, C. Bond & D. Healy**. *Influence of structural position on fracture connectivity in a folded tight sandstone reservoir analogue*.

Pellitero, R., Rea, B.R., Spagnolo, M., Bakke, J., Hughes, P. D., Ivy-Ochs, S., Lukas, S., Renssen, H. & Ribolini, A. (2014). *Uso de paleoglaciares para la reconstrucción del clima durante el Dryas Reciente en Europa*. XIII National Meeting of the Spanish Geomorphology Society. Cáceres, 9th – 12th September 2014.

Pellitero, R. 2014. *The little Ice Age in the Iberian Peninsula: records from landforms, frozen caves, glaciers and testimonies*. SAGES workshop "North Atlantic/European climatic controls on landscape evolution during the Little Ice Age". University of Aberdeen. 19th June 2014.

Brice Rea attend the SAGES funded tidewater glacier research meeting, Edinburgh, his presentation highlighting work by the Aberdeen group and collaborators (completed and recently funded), to improve calibration and validation of numerical glacier calving models through empirical data-model integration.

Esteem

Josie Geris has been elected as a new Chair of the EGU Hydrology Section's Ecohydrology Technical Committee, 2015 to 2018.

Jeff McDonnell was elected as a Fellow of the Geological Society of America.

Dave Muirhead was nominated for the University of Aberdeen CoPS Award for Teaching Excellence.

Nick Rawlinson was appointed to the Royal Society of Edinburgh Young Academy of Scotland, one of only two new members from the University of Aberdeen for 2014.

Matteo Spagnolo gave an invited talk at Aberystwyth University on 'Lifting the ice sheet lid: the morphometry of drumlins and mega-scale glacial lineations' in June.

Doerthe Tetzlaff gave an invited keynote at the National meeting of the Royal Meteorological Society conference on "Mountain Hydrometeorology", in Perth, Scotland on 28th June 2014.

Outreach, training, media

Andrew Hurst held a workshop with Total CSTJF in Pau to discuss collaboration of tablet-format digital publishing of outcrop guides for the AAPG Centennial, 2017.

Andrew Hurst held sand injectite workshops with E.On, Norway, EnQuest (Kraken Field Group), Maersk (Tullich Field Group), Dana (Guillemot Group) and JX Nippon Exploration.

David Iacopini ran a full immersion, week-long course on the basics of seismic interpretation of petroleum reservoirs, within the MSci programme in Geophysics (ENI sponsored) at the University of Pisa.

Field

John Howell conducted field work: in Utah and Arizona with Colm Pierce 12th – 26th May; in Spain with the SAFARI project 16th – 23rd June; and around Elgin with the SAFARI Project 24th – 29th June.

Ramon Lopez Jimenez has just finished two months of field work in Kahramanmaras Province (SE Turkey). Mainly continuing with mapping of submarine channels and their associated overbank deposits, along with facies descriptions for all of them.

Brice Rea, Matteo Spagnolo and **Craig Frew** have just returned from a field trip to Greenland, on a project led by Craig and funded with EU money (INTERACT project). They successfully sampled several metres of a glacial lake sediment that will be used to extract high resolution climate data for the Holocene. The project is in collaboration with the University of Bergen.

Thomas Wild and **Clare Bond** completed field work on the Utica shale in New York State in June in collaboration with Ryan Shackleton from West Virginia University, and met up again in the French Alps to complete field work on Jurassic shales in July.

Other

Ponfa Roy Bitrus attended the 2014 IEAGHG International CCS Summer School, hosted by the University of Texas at Austin. It was held from the 6th – 11th of July. During the course of the summer school a Memorandum of Understanding was signed between the Australian CO2CRC and the UKCCSRC, and UK and Australian students were invited as witness. Ponfa Roy Bitrus and Alfiya Kazikhanova were among the witnesses, representing the University of Aberdeen.

The Sages/The North Aberdeen co-sponsored workshop on 'North Atlantic/European climatic controls on landscape evolution during the Little Ice Age' was held on the 19th of June at the University of Aberdeen. In attendance were over 25 participants from institutions across Scotland, the UK and Europe. The main aim of the meeting was to bring together researchers with interests in climatic modelling, palaeoclimatic reconstruction and geomorphology to discuss various interpretations of Little Ice Age landscape change in the context of oceanic/atmospheric circulation dynamics. This event was organised by Geosciences PhD student **Craig Frew** along with Dr Rob Wilson from the University of St Andrews. The success of the event will hopefully provide a stimulus for future meetings of the same nature.

Other (continued...)

Dave Healy hosted **Mathilde Jacob** from the University of Strasbourg (1 month student internship), working on the petrophysical properties of fractured and altered granites.

David Iacopini hosted **Nawal de Freslon** from the University of Strasbourg (1 month student internship), working on characterizing seismic damage zones and Parihaka fault structure in the Parihaka Basin.

David Iacopini and **Rob Butler** hosted **Paolo Pace** from Chieti University for 3 months (visiting PhD student), working on offshore seismic data from the Adriatic Sea.

Dave Muirhead is now a permanent member of staff (Teaching Fellow).

Colm Pierce has joined us as a post-doc on the RWE aeolian project.

The Aberdeen Water Initiative, led by **Doerthe Tetzlaff**, had Professor Gordon Grant (Oregon State University and research hydrologists at the USDA Forest Service) visiting Aberdeen. Gordon's research interests are in fluvial geomorphology, hydrology, river morphodynamics, sediment transport and implications of climate change. Gordon visited the field sites of the NRI in Deeside, gave a talk within the "Aberdeen Water Seminar series" and met colleagues for discussion and collaborative ideas on 12th June.

Next copy deadline: September 15th, 2014

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