

## AIRBORNE RESEARCH & SURVEY FACILITY

### PUBLICATIONS FOR THE CALENDAR YEAR 2009.

#### JOURNAL PUBLICATIONS

##### ISI Referred (All Public Sector):

International: (23)

**Barrand, N. E., Murray, T., James, T. D., Barr, S. L. and Mills, J. P. (2009)** Optimizing photogrammetric DEMs for glacier volume change assessment using laser-scanner derived ground-control points. *Journal of Glaciology*, 55, 106 – 116.

**Bellamy, P.E., Hill, R.A., Rothery, P., Hinsley, S.A., Fuller, R.J., & Broughton, R.K. (2009)** Willow Warbler *Phylloscopus trochilus* habitat in woods with different structure and management in southern England. *Bird Study*, 56, 338-348.

**Bennett, M. R., Huddart, D. and Gonzalez, S. (2009)** Glaciovolcanic landsystems and large-scale glaciotectonic deformation along the Brekknaföll-Jarlhettur, Iceland. *Quaternary Science Reviews*, 28, 647-676.

**Calvo-Cases, A., Alexander, R. W., Arnau-Rosalén, E., Bevan, J., Cantón, Y., Lazáro, R., Puigdefábregas, J. and Solé-Benet, A. (2009)** Interaccion de procesos geomórficos y distribución de componentes de la superficie del suelo en relación a la evolución de los abarrancamientos de tabernas (Almería). *Cuadernos de Investigacion Geografica*, 35, 43-62.

**Carrivick, J. L. Russell, A. J., Rushmer, E. L., Tweed, F. S., Marren, P. M., Deeming, H and Lowe, O. J. (2009)** Geomorphological evident towards a de-glacial control on volcanism. *Earth Surface Processes and Landforms*. 34, 1164-1178.

**Conway, S. J, Decauline, A., Balme, M. R., Murray, J. B and Towner, M. C. (2009)** A new approach to estimate hazard posed by debris flows in the Westfjords of Iceland. *Geomorphology*, 114, 556-572.

**Duxbury, G., Langford, N., Hay, K. and Tasinto, N. (2009)** Quantum cascade laser spectroscopy: diagnostics to non-linear optics. *Journal of Modern Optics*, 56, 2034-2048.

**Evans, D. J. A., Nelson, C. D. and Webb, C. (2009).** An assessment of fluting and “till-esker” formation on the foreland of Sandfellsjökull, Iceland. *Geomorphology*, 114, 453-465.

**Gostlow, B., Robinson, A. D., Harris, N. R. P., O'Brien, L. M., Oram, D. E., Mills, G. P., Newton, H. N. and Pyle, J. A. (2009)**  $\mu$ Dirac: an autonomous instrument for halocarbon measurements. *Atmospheric Measurement Techniques Discussions*, 2, 2123-2159.

**Grebbly, S, Cunningham, D, Naden, J and Tansey, K (2009)** Lithological mapping of the Troodos ophiolite, Cyprus, using airborne LiDAR topographic data. *Remote Sensing of Environment*, 114, 713-724.

**Harris, A and Bryant, R. G (2009).** A multi-scale remote sensing approach for monitoring northern peatland hydrology: Present possibilities and future challenges. *Journal of Environmental Management*, 90, 2178-2188

**Hart, A. B., Griffiths, J. S. and Mather, A. E. (2009)** Some limitations in the interpretation of vertical stereo photographic images for a landslide investigation. *Quarterly Journal of Engineering, Geology and Hydrology*, 42, 21-30.

**Hill, R.A., & Broughton, R.K. (2009)** Mapping understorey of deciduous woodland from leaf-on and leaf-off airborne LiDAR data: a case study of lowland Britain. *ISPRS Journal of Photogrammetry and Remote Sensing*, 64, 223-233.

**Hinsley, S.A., Hill, R.A., Bellamy, P.E., Harrison, N.M., Speakman, J.R., & Ferns, P.N. (2009)** Do highly modified landscapes favour generalists at the expense of specialists? The example of woodland birds. *Landscape Research*, 34, 509-526.

**Hinsley, S.A., Hill, R.A., Fuller, R.J., Bellamy, P.E. & Rothery P. (2009)** Bird species distributions across woodland canopy structure gradients. *Community Ecology*, 10, 99-110.

**Hunter, P. D., Tyler, A. N, Gilvear, D. J. And Willby, N. J. (2009)** Using remote sensing to aid the assessment of human health risks from blooms of potentially toxic cyanobacteria. *Environmental Science Technology*, 43, 2677-2633.

**Lee, J. D., McFiggans, G., Allan, J. D., Baker, A. R., Ball, S. M., Benton, A. K., Carpenter, L. J., Commane, R., Finley, B. D., Evans, M., Fuentes, E., Furneaux, K., Goddard, A., Good, N., Hamilton, J. F., Heard, D. E., Herrmann, H., Hollingsworth, A., Hopkins, J. R., Ingham, T., Irwin, M., Jones, C. E., Jones, R. L., Keene, W. C., Lawler, M. J., Lehmann, S., Lewis, A. C., Long, M. S., Mahajan, A., Methven, J., Moller, S. J., Muller, K., Muller, T., Niedermeier, N., O'Doherty, S., Oetjen, H., Plane, J. M. C., Pszenny, A.A.P., Read, K. A., Saiz-Lopez, A., Saltzman, E. S., Sander, R., von Glasow, R., Whalley, L., Wiedensohler, A. and Young, D. (2009)** Reactive Halogens in the Marine Boundary layer (RHAMBLe): the tropical North Atlantic experiments. *Atmospheric Chemistry and Physics*, 9, 217173-21783.

**Miller, P. E., Kunz, M., Mills, J. P., King, M. A., Murray, T., James, T. D. and Marsh, S. H. (2009)** Assessment of glacier volume change using Aster-based surface matching of historical photography. 1-10.

**Newton, A.C., Hill, R.A., Echeverría, C., Golicher, D., Rey Benayas, J.M., Cayuela, L., & Hinsley, S.A. (2009)** Remote sensing and the future of landscape ecology. *Progress in Physical Geography*, 33, 528-546.

**O'Brien, L. M, Harris, N. R. P., Robinson, A. D. Gostlow, B., Warwick, N., Yang, X. and Pyle, J. A.(2009)** Bromocarbons in the tropical marine boundary layer

at the Cape Verde Observatory – measurements and modelling. *Atmospheric Chemistry and Physics*, 9, 4335-4379.

**Pyle, D. M. and Elliott, J. R. (2009)** Quantitative morphology, recent evolution, and future activity of the Kameni Island volcano, Santorini, Greece. *Geosphere*, 2, 253-268.

**Stoy, P. C., Williams, M., Disney, M., Preto-Blanco, A., Huntley, B., Baxter, R. and Lewis, P. (2009)** Upscaling as ecological information transfer: a simple framework with application to Arctic ecosystem carbon exchange. *Landscape Ecology*, 24, 971-986.

**Stoy, P.C., Williams, M., Spadavecchia, L., Bell, R. A., Prieto-Blanco, A., Evans, J. G and van Wijk, M. T. (2009)** Using information theory to determine optimum pixel size and shape for ecological studies: aggregating land surface characteristics in Arctic ecosystems. *Ecosystems*, 12, 1432-9840.

#### **Non-ISI /conference proceedings (All Public Sector):**

##### International (9)

**Almond, S. F., Boyd, D. S., Dash, J. And Curran, P. J. (2009)** Multi-scale analysis and validation of the Envisat MERIS terrestrial chlorophyll index (MTCI) in woodland and arable farmland. *In Proceedings of RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Almoustafa, T. A. and Armatige, R. P. and Danson, F. M. (2009)** Hyperspectral remote sensing for measuring fuel moisture content: case study for fire risk assessment in the UK. *In Proceedings of RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Conway, S. J., Balme, M.R., Murray, J. B. and Towner, M. C. (2009)** Debris Flow as a Mechanism for Forming Martian Gullies, *at European Geosciences Union General Assembly, 19-24 April 2009, Vienna, oral presentation.*

**Conway, S. J., Balme, M.R., Murray, J. B. and Towner, M. C. (2009)** Debris Flow as a Mechanism for Forming Martian Gullies, *at 40th Lunar and Planetary Science Conference, 21-27 March 2009, Houston, Texas, poster presentation*  
<http://www.lpi.usra.edu/meetings/lpsc2009/pdf/1950.pdf>.

**Conway, S. J., Decaulne, A., Balme, M.R., Murray, J. B. and Towner, M. C. (2009)** Using patterns of debris flow erosion and deposition in the Icelandic Westfjords to delineate hazard zones, *at European Geosciences Union General Assembly, 19-24 April 2009, Vienna, oral presentation.*

**Hunter, P. D., Tyler, A. N., Gilvear, D. J. and Willby, N. J. (2009).** Using remote sensing to aid the assessment of human health risks from blooms of potentially toxic cyanobacteria. *Environmental Science Technology. ACS Publications.*  
10.1021/es802977u, 05.03.09, <http://pubs.acs.org>.

**Hill, R.A., O'Hare, M.T., Stillman, R.A., & Gozlan, R.E. (2009)** Hyperspectral remote sensing of river macrophyte vegetation: towards an assessment of wildfowl and fish habitat quality. *In Proceedings of RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Khavarian, H., Atkinson, P. And Milton, T. (2009).** Estimation of albedo from multiple view angle airborne imagery spectrometry. *In Proceedings of RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Latif, Z. A. and Blackburn, G. A. (2009)** Driving a forest microclimate model using gap and canopy properties from LiDAR and multispectral data. *In Proceedings of RSPSoc Annual Conference, Leicester, UK, September 2009.*

#### National (12)

**Almoustafa, T., Armitage, R. P. and Danson, F. M. (2009)** Hyperspectral remote sensing for measuring fuel moisture content: case study for fire risk assessment in the UK *ARSF Workshop 2009 held in association with RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Bateson, L., Pearce, J. and Fleming, C. (2009)** Testing hyperspectral remote sensing monitoring techniques for geological CO<sub>2</sub> storage at natural seeps. *ARSF Workshop 2009 held in association with RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Boyd, D., Dash, J. Almond, S. (2009)** Validating MTCI with airborne data. *ARSF Workshop 2009 held in association with RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Conway, S. J., Decaulne, A., Balme, M.R. Murray, J. B and Towner, M.C. (2009)** Debris flows on Earth and Mars. *ARSF Workshop 2009 held in association with RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Garcia, M., Riaño, D., Chuvieco, E. and Danson, F. M. (2009)** Biomass fractions estimations for a Mediterranean forest in Central Spain from ALS data. *ARSF Workshop 2009 held in association with RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Friess, D., Smith, G., Spencer, T and Möller, I. (2009)** Monitoring the ecological impacts of managed realignment using multispectral remote sensing. *ARSF Workshop 2009 held in association with RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Hill, R. and Hinsley, S. (2009)** Assessing the distribution and abundance of a keystone riparian macrophyte: impacts of swan grazing and consequences for Salmonid conservation. *ARSF Workshop 2009 held in association with RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Hinsley, S. A., Hill, R. A., Broughton, R. K., Redhead, J. W., Bellamy, P. E., Heard, M. S. and Pywell, R. P. (2009)** Using airborne remote sensing to evaluate the

effects of arable farming on habitat structure and biodiversity at a landscape-scale. *ARSF Workshop 2009 held in association with RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Hunter, P. (2009)** Monitoring mass populations of toxic cyanobacteria using remote sensing. *ARSF Workshop 2009 held in association with RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Ramirez, F. A., Armitage, R. P., Danson, F. M. and Bandugula, V. (2009)** Characterising phenological changes in UK forests using multi-temporal laser scanning. *ARSF Workshop 2009 held in association with RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Spies, B. F., Nichol, C. and Mac Arthur, A. (2009)** The utility of wavelets for the analysis of hyperspectral aerial images acquired under sub optimal conditions. *ARSF Workshop 2009 held in association with RSPSoc Annual Conference, Leicester, UK, September 2009.*

**Stevenson, J. (2009)** From ASCII files to orthophotos: The processing of ARSF data using Open Source tools. *ARSF Workshop 2009 held in association with RSPSoc Annual Conference, Leicester, UK, September 2009.*

#### **PhD Thesis (5)**

**Almond, S. (2009)** Validation and application of the MERIS terrestrial chlorophyll index. Bournemouth University. *unpublished PhD thesis.*

**Applegarth, J. (2009)** Complexity in lava flows: surface features and structural morphology. University of Lancaster. *unpublished PhD thesis.*

**Aqdus, S. A. (2009)** Airborne multispectral and hyperspectral remote sensing techniques in archeology: a comparative study. University of Glasgow. *unpublished PhD thesis.*

**Friess, D. A. (2009)** Impacts of Managed Realignment on Low-lying Coasts. University of Cambridge. *unpublished PhD thesis.*

**Llewellyn, G. M. (2009)** Remote sensing soil contamination using the grassland red-edge. University of Southampton. *unpublished PhD thesis.*