



Discipline Bridging Meeting

Remote sensing the past: integrating satellite imagery and palaeoecological datasets to explore recent environmental change

Thursday 21st May 2015

Room A22, Humanities Building, University Park Campus. The University of Nottingham, Nottingham, UK. NG7 2RD

Remote sensing is becoming increasingly important in certain areas of archaeology, such as large-area optical imaging of ancient settlements, 3D laser scanning of anthropogenic structures, and ground penetrating radar to detect sub-surface features. However, there is considerable, as yet untapped, potential to integrate palaeoecological datasets (such as pollen and phytoliths) with remotely sensed imagery for integrated analysis on historic environmental change. Ecologists and Palaeoecologists often collect modern data for comparison with the past, through pollen trapping, soil and sediment analysis, etc. Complementarily, remote sensing image archives now stretch back over 40 years. As such, palaeoecological data could provide a rich source of reference data to support large-area historic remotely sensed image analysis, enabling spatial reconstruction and increasing the sophistication and accuracy of past environmental reconstructions to further our understanding of Earth systems. For example, recent pollen and soil data could be compared with image-derived land cover, and the relationships could be applied to palaeoecological data to characterise past environments. Despite the obvious potential for combining palaeoecology and remote sensing, little such work has been carried out – we believe this subject provides great opportunity for targeted collaboration between these fields.

The aim of this meeting is to build collaborations and research capacity in integrated and novel palaeoecology-remote sensing research by leading the development of a specialist network. It will bring together leaders in these fields to establish an agenda and community for integrated palaeoecology-remote sensing research, with a view towards future major grant applications.

Meeting format

The format of the meeting has been designed to allow the best opportunities for researchers to network, discuss their fields of research and exchange ideas as to the complementarities of remote sensing and palaeo research to foster new research collaborations. As such, this one-day meeting will include a series of presentations in the morning giving an overview of current relevant palaeo and remote sensing research, and ideas for the future, followed in the afternoon by workshop sessions and discussions to examine the feasibility of linking these two, currently disparate, fields, and the potential for collaborative research and grant proposals.

Programme

Time	Activity
09.30 – 10.00	Coffee and registration
10.00 – 10.20	Welcome and Introduction Dr. Hannah O'Regan, University of Nottingham
10.20 – 10.40	Speaker: Dr. Paul Aplin, University of Nottingham
10.40 – 11.00	Speaker: Dr. Christopher Marston, University of Nottingham
11.00 – 11.30	Coffee
11.30 – 11.50	Speaker: Dr. Jane Bunting, University of Hull
11.50 – 12.10	Speaker: Dr. Rob Marchant, University of York
12.10 – 12.30	Speaker: Prof. Matt Sponheimer, University of Colorado
12.30 – 13.30	Lunch
13.30 – 14.45	Workshop
14.45 – 15.15	Coffee
15.15 – 16.15	Group discussion
16.15 – 16.30	Close

Meeting details

This free, invitation-only workshop will run from 9.30 (coffee and registration) with talks beginning at 10am, until 4.30pm in room A22 in the Humanities Building on the University Park Campus. Lunch and tea / coffee will be provided. Visitor parking is available on campus (refer to the campus map which can be found at: <https://www.nottingham.ac.uk/sharedresources/documents/mapuniversitypark.pdf>) and costs £7 for the full day (this can be reclaimed). If required, accommodation is available on campus at the Orchard Hotel (<http://www.deverenues.co.uk/en/venues/east-midlands-conference-centre-orchard-hotel/orchard-hotel/>). Directions to the university campus can be found at <https://www.nottingham.ac.uk/about/visitorinformation/mapsanddirections/universityparkcampus.aspx>

We expect to be able to cover transport costs for all participants, and are able to provide accommodation for a limited number of delegates. If you require accommodation or any further information, enquiries should be made to Dr. Christopher Marston (christopher.marston2@nottingham.ac.uk).