



The Worshipful Company of Water Conservators



## THE WATER CONSERVATION TRUST

Registered Charity 1007648, c/o HQS Wellington, Temple Stairs, Victoria Embankment, London, WC2R 2PN

### Charity Update Supplement August 2013

#### The Universities Programme

***The present Universities Programme started as a Water Conservators Company initiative in 2006.*** The objective was to support and encourage students to study water and environmental subjects at postgraduate level and to view the sector positively as a result of the Conservators connection.

The Water Conservation Trust devised a scheme - offering bursaries towards course fees to students, dissertation support grants to university departments and a prize for the best dissertation – and this has worked well. Trustees maintain an active interest in the scheme and each university has liaison person to ensure that all partners benefit. Several universities: Brunel, Sheffield and Imperial College have sponsored joint events and all provide access to latest research thinking.

Starting with a pilot at Exeter University in early 2007, the Programme's first three-year agreement, in 2007, was with Wadham College, Oxford University, followed by Sheffield and Brunel in 2008. After the 2012 intake, the Trust had assisted 44 students at 11 UK universities. Since 2008, the Company had awarded *Water Conservators Best Dissertation Prizes* to nine students at four universities. These prizes are awarded to the highest performing students in the departments receiving bursary support. The Programme has now been running six years and it was time for an assessment.



Kristian Metcalf, 'Pilot' Student, now Darwin Research Fellow

***A Conference took place on 3 July 2013 in London, attended by over 80 people from universities, industry and donors, to review the outcomes of the Bursary Scheme run by The Water Conservation Trust.***



Ivor Richards, Master, Water Conservator

Opening the bursary review conference, Master Water Conservator **Ivor Richards**, explained the commitment of the Livery Company to improving the perception of the water and environment sector, and the quality and relevance of research and education.

He was grateful for the hard work carried out by the Trustees of the Company's charity, *The Water Conservation Trust*, in constructing and operating its bursary scheme.

Ivor continued by announcing that the Company aimed to extend and deepen its relationship with universities in the near future. This exchange of views – universities, students and donors will be very helpful.

The Company and Trust were grateful to **Lord Macdonald**, Warden of Wadham, for agreeing to chair this event, which was part of the review.

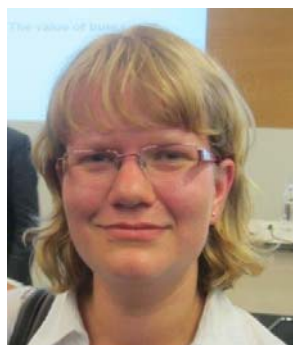
Lord Macdonald said the connection with Wadham had been extremely useful. The bursaries awarded to Wadham over the last six years had allowed the College to identify strong candidates who, otherwise, would not have stayed in the sector.



Lord Macdonald

The bonds created between the Company and Trust on the one hand, and the university and the bursary students would endure. The Trust has kept in touch with the bursary students as they enter work or further education.

Five bursary holders had agreed to contribute to this review with presentations, followed by a question and answer session and conclusions.



Caroline Hepburn

**Caroline Hepburn** (University of Sheffield, 2010) had been awarded an MSc in Contaminant Hydrogeology. The bursary had enabled her to take her first choice subject at Sheffield. Her dissertation was *Building a Teaching Exercise for Groundwater Modelling*. The modular course covered a range of water and environment topics and she is now working towards a PhD at Cranfield University, studying techniques for the removal of siloxanes from biogas.



Kath Rothwell

**Katherine Rothwell** (Newcastle University, 2012) approached the Trust directly, and following discussions with the School of Civil Engineering and Geosciences, the Trust awarded a bursary and has continued the cooperation into academic year 2013-14. The subject area of Kath's dissertation *Calculating Background Threshold Contaminant levels in Gateshead for Lead, Arsenic and Cadmium* is major importance to environmental planners.



Girish Rambaran

**Girish Rambaran** (Brunel University, 2010) as a mature candidate, Girish had particular need of the bursary. Already committed to a career in wildlife protection in the London area, his MSc in Climate Change Impacts and Sustainability and his dissertation *Retaining the integrity of an SSI in a changing climate: Frays Farm Meadows* [in London] has a direct bearing on the management of urban wetlands, and consequences for water conservation practices.



Hannah Wooldridge

**Hannah Wooldridge** (University of Sheffield, 2009) has also been awarded a MSc in Contaminant Hydrogeology. Her modules included the fate and transport of pollutants in ground water, remediation, and the natural attenuation of pollutants. Her dissertation *Spatial variability in physical and geochemical properties of sediments affecting nitrogen attenuation in the hyporheic zone of the River Tern* has led to consultancy work on site investigations into agricultural and chemical pollutants.



Patrick Thomson

**Patrick Thomson** (Wadham College, 2010) was a mature student with experience in international development, particularly in Africa. Looking for a career change he returned to Oxford to take an MSc in Water Science, Policy & Management. With local knowledge his dissertation *GSM-enabled remote monitoring of rural handpumps: a proof of concept study* has led to further work for the Oxford Unit, with aid agencies support, to test and implement the research in Kenya.

A number of questions were asked about the technical issues surrounding each student's research and post-graduation work: sources for siloxanes (including cosmetics) and consequences (silica (sand) deposits in combustion chambers); problems in setting background levels for heavy metal contamination in former industrial areas; the carbon release dangers with wetlands drying out; the need to understand the fate of nitrogen in hyporheic zones, and the ability of the GSM project to assess the relative efficiency of pumps in operational circumstances.

The scheme's positive impact on universities was noted as well as its crucial importance to individual bursary holders. The performance of the bursary holders had been generally good and, in some cases, exceptional. Looking at the bursary mechanism, the conclusion reached was that the studies, projects and subsequent careers of the bursary students would make a significant contribution to the sector.

**Colin Bland**, Chairman of the Water Conservation Trust said that Trustees were pleased with the outcomes but, because the programme is entirely funded by contributions from Company members and donations, there was a limit as to how far the Trust could make an impact using bursaries alone. That said, during 2013-14 the Trust has announced that the scheme would be offered to 14 universities, and bursaries worth £80,000 will be available. The programme is funded by Company Members, but its size and scope was significantly enhanced by donations from the Waste Management Industry Training (WAMITAB) and the Advisory Board and the Environmental Services Association Education Trust (ESAET). Colin thanked the event sponsors: Pinsent Masons, WAMITAB, ESAET and Brunel University. The Trustees would take the views expressed into account in their review.



Colin Bland, Trust Chairman

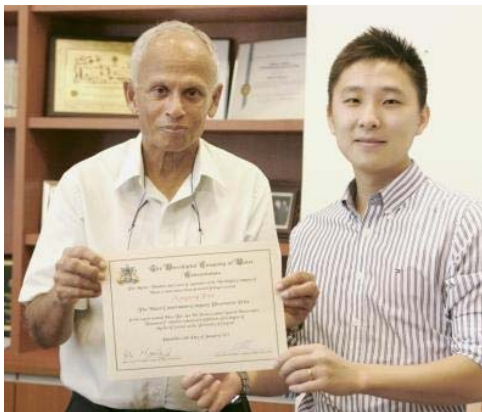
## Other Bursary News

**Best dissertation prizes** have been awarded for five years. The awards are:

Year	Prize-winner	University	Dissertation topic
2007-08	Samantha Boardley	Wadham Oxford	<i>Living in Limbo: Prioritizing Water Needs of People Living with HIV/Aids</i>
2008-09	Nicole Rowney	Wadham Oxford	<i>Cytotoxic Drugs in Drinking Water: A Prediction and Risk Assessment Exercise for the Thames Catchment</i>
2010-11	Nigel Hargreaves	Brunel	<i>Sustainability: A New Approach?</i>
2011-12	Antony Wright	Brunel	<i>The Budget Approach - Equity in Allocation, Flexibility in Delivery</i>
2011-12	Lucinda Gale	Brunel	<i>Empowering Individual Carbon Footprint Reduction: Development of a Tool to Assess the Impact of Lifestyle Choices on Carbon Footprint and to Personalise Emission Reduction Alternatives</i>
2011-12	Anthony Hall	Sheffield	<i>Characterisation of Microbial Communities in a Denitrifying Bioreactor</i>
2011-12	Myngyong Tan	Wadham Oxford	<i>How Far Are We From Carbon Neutral Wastewater Treatment?</i>
2011-12	Tamara Coello Garcia	Brunel	<i>The Performance of Biological Treatment Processes in Removing Hazardous Substances</i>
2011-12	Matthew Ascott	Birmingham	<i>Conceptual and Numerical Modelling of Superficial Groundwater Flow to Improve Local Abstraction Impact predictions</i>

### Recent prize-winners

Two awards have been made so far in 2013. **Myngyong Tan** (Wadham) had returned to Singapore but Professor Asit Biswas agreed to make the presentation on behalf of the Trust.



**Professor Asit Biswas and Myngyong Tan**

Professor Asit Biswas was formerly a member of the *World Commission on Water* and is a Past President of the International Water Resources Association.

**Tamara Coello Garcia** (Brunel) attended the Water Conservators' Installation Lunch and the bursary review Conference. At the

end of the Conference Tamara was awarded her certificate and engraved water jug by the Colin Bland, Chairman of the Water Conservation Trust.



**Tamara Coello Garcia** seen here with the Trust's Hon Treasurer, Peter Hall

### **Extension to the Universities Programme**

The Trust's Chairman, Colin Bland, has announced that the bursary programme will be extended in 2013 by one-year awards to Sidney Sussex, Cambridge, Cranfield, Leeds and University College, London.