

## Dr Matt O'Callaghan PhD

Research Fellow

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### About

Dr Matt O'Callaghan is an ecologist specializing in stream and floodplain invertebrate responses to disturbance. His current research is investigating the impact of drought on the functioning of stream ecosystems, part of a NERC funded project led by Dr Mark Ledger.

### Qualifications

2007-2011 PhD Floodplain ecology. University of Birmingham

2004-2007 BSc (Hons) Environmental Science ( 1<sup>st</sup> Class) University of Birmingham

### Biography

Dr O'Callaghan completed an Environment Agency funded PhD on specialist insect communities in floodplains, using stable isotope techniques to investigate the role of flood risk on prey selection and resource partitioning (supervisors Professors Jon Sadler and David Hannah). Following his PhD he worked with Professor Jon Sadler and James Hale developing new modeling techniques to assess urban ecosystem functioning. He is currently a Research Fellow, working with Dr Mark Ledger on a NERC funded project to investigate the impact of drought on stream ecosystem functioning.

### Research

#### Research interests

- Stream and floodplain ecology
- Invertebrate taxonomy
- Food web modeling
- Dispersal mechanisms in fragmented ecosystems

### Other activities

Member of Council - British Ecological Society

### Publications

#### Papers

O'Callaghan, M. J., D. M. Hannah, et al. (2013). "Responses to River Inundation Pressures Control Prey Selection of Riparian Beetles." *PLoS One* 8(4).

O'Callaghan, M. J., D. M. Hannah, et al. (2013). "Exposed riverine sediments (ERS) in England and Wales: distribution, controls and management." *Aquatic Conservation: Marine and Freshwater Ecosystems* 23(6): 924-938.

O'Callaghan, M. J., Finn, D. S., Williams, M., Sadler, J. P. (in press) Development and characterisation of seven polymorphic microsatellite loci in the specialist riparian ground beetle, *Bembidion atrocaeruleum*. *Journal of Insect Science*

#### Reports

O'Callaghan, M. J., Sadler, J.P. (2013) Threats and controls on the distribution of exposed riverine sediments and their associated Coleopteran fauna in England and Wales. Environment Agency Technical Report SC060038/R