

PST05 - Ponding in intermittent streams: A refuge for lotic taxa or habitat for newly colonising taxa?

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Intermittent streams are temporally dynamic systems, shifting between lotic, lentic and terrestrial habitat phases. However, ecological studies have typically focussed on the lotic phase and little is known about the contribution of river bed ponding (lentic habitat phase) to biological diversity among intermittent river landscapes. This paper examines whether river bed ponding provides a refuge for lotic taxa during stream desiccation or is a habitat for newly colonising taxa. We also assessed the contribution of river bed ponding to total aquatic macroinvertebrate diversity. Macroinvertebrate data was collected along 4 intermittent reaches of a temperate river system (River Hamps and River Manifold) in the UK during lotic and ponding phases. A total of 17 temporary ponds were examined. Preliminary results indicate that communities present during river bed ponding were heterogeneous compared to lotic communities and made a significant contribution to overall aquatic diversity. Examining biological communities present during the lentic phase can (1) add significant detail to the ecological functioning of intermittent streams, and (2) better quantify the overall aquatic biodiversity and conservation value of intermittent freshwaters.