

A novel knowledge coproduction approach for harnessing the social sciences in urban biodiversity renewal

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A model of progressive engagement

We use a reconceptualization of Arnstein's ladder of participation¹ to explore the conditions for deepening family engagement in biodiversity renewal in an area of high deprivation in Plymouth.



Project rationale

- Families are an important target for biodiversity renewal since childhood experiences and family values norms strongly influence pro-nature behaviours across the life span.
- Urban areas of high deprivation are nature-impooverished, limiting citizens' opportunities to develop pro-nature behaviours and contribute to civic processes that address disparities in nature access.
- Existing initiatives either work solely in schools, with minimal family involvement, or target families outside of schools using public media. The latter attracts families that are already nature-connected, reinforcing social inequity.

Partners: Devon Wildlife Trust, Zebra Collective, Green Communities (Plymouth City Council), St Peters CE Primary School, Marlborough Primary Academy.

Activities to date: 16 events attended by 108 children and adults. 40 children and adults regularly participating; self-reported increase in nature connectedness.

Project outcomes

- Identify opportunities and preferences for biodiversity renewal in the focal neighbourhood with families and partners.
- Share coproduced outputs with Plymouth City Council (Green Communities) and wider community at a digital media event in July.
- Theory of change and practitioner webinars about engaging under-privileged communities in biodiversity renewal using this model.



1. Hurlbert, M., & Gupta, J. (2015). The split ladder of participation: A diagnostic, strategic, and evaluation tool... Environmental Science & Policy, 50, 100-113.