Long Mead – bottom-up led community participation model

Dr Matthew Bulbert

Who am I?

- Dr Matthew Bulbert
- Subject coordinator for MSc Conservation Ecology
- Species variation across ecological gradients

Conservation in context: Species rich grasslands

Species rich grasslands

- Massive loss of grassland habitat in the UK and indeed globally
  - 50% of temperate grasslands have been converted for agriculture (41%), commercial forestry (7.5%) and urbanisation (~6%)

- **97% loss of species rich wildflower meadows**

- High diversity and endemism
  - Plant diversity that exceeds that of tropical forests at scales less than 100m2
  - High floral endemism (e.g., 2nd highest in Europe).

- In Europe wide diversity of taxa, are grassland reliant,
  - for example, birds (29%), butterflies (63%), orthoptera (75%) and even molluscs.
  - In UK, common insects such as beetles, butterflies, bees and wasps, many of which need grasslands, declining in abundances over the last 40 years of between 30-65%

Conservation value

- Massive capacity for storing carbon
  - 34% of the global stock of carbon, with temperate grassland in particular being the third largest global store of carbon in soils and vegetation (after wetlands and boreal forests)

- Globally not under conservation jurisdiction
  - less than 5% of all temperate grasslands

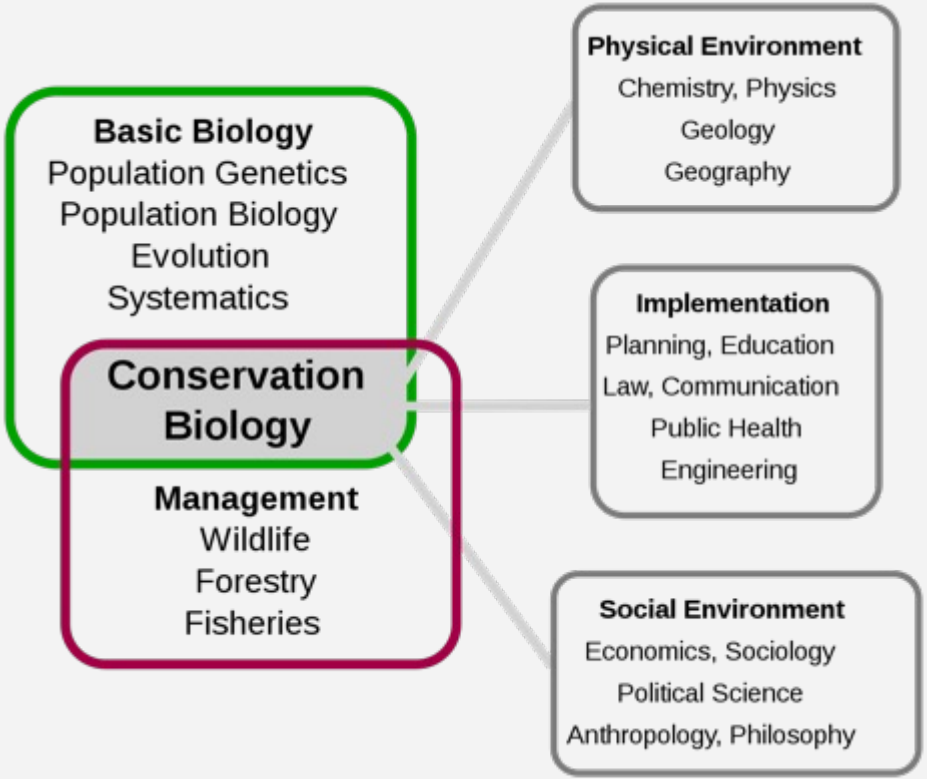
- **Restore species rich grasslands == massive and clear win**

Floodplain meadows: habitat and culture

- Cannot be built on – restoration requires landowner negotiations
- Unable to sustain itself though without human intervention
- Working crops: conservation needs to be balanced with crop yield = compromise
- Good management has direct human benefactors
- Conservation of habitat of high value and cultural practice

Action-based conservation requires community engagement

Conservation is multi-disciplinary



- Requires engaged and informed community
- Effective application of evidence-based approaches
- Social integration: value is not just biodiversity

Engagement models: Citizen science structures

- Amount of control that participants have over the different steps of the activity:

I. Contributory projects:
   - **Professional scientist** = lead
   - Citizen science = collect data as per the specified methodology

II. Collaborative projects:
   - **Professional scientist** = lead
   - Citizen science = invited to refine the design of activities, analyse data, or disseminate findings

III. Co-created projects:
   - **Professional scientist**s and citizens working as a team = in most or all steps of the scientific process

Centre for Biodiversity and Conservation research

Biodivers Conserv
DOI 10.1007/s10531-010-9882-1

ORIGINAL PAPER

Using spider web types as a substitute for assessing web-building spider biodiversity and the success of habitat restoration

John R. Gollan · Helen M. Smith · Matthew Bulbert · Andrew P. Donnelly · Lance Wilkie

Project success at time but….

- Longevity and adoption
- Not self-propagating = no champions to maintain it
- Organisations not stable; staff and funding ephemeral
- Four key scientists moved on to other projects as funding disappeared and interests changed

Turning things on their head: community-based participatory action

IV. Community-Based Participatory Action

- **Community stakeholders partner with researchers and policy**
  - Bottom-up approach (community is at the centre not the researcher)

- **COMMUNITY BASED**
  - grounded in the needs, issues, concerns, and strategies of communities and the community-based groups that serve them

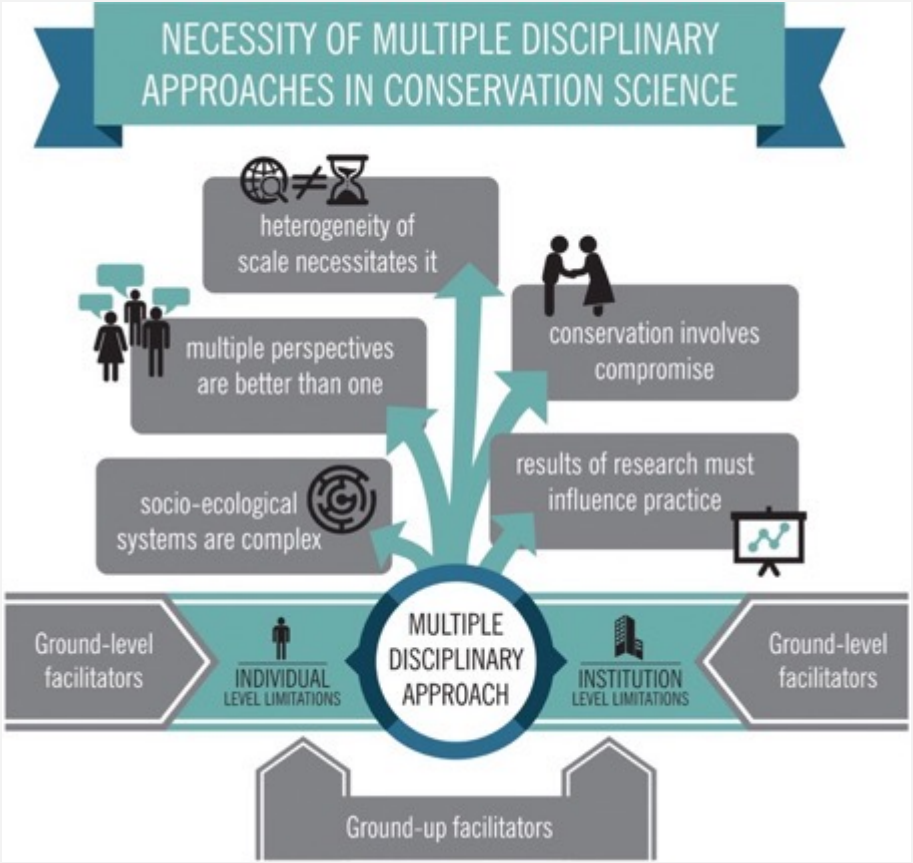
- **PARTICIPATORY**
  - directly engaging communities and community knowledge in the research process and its outcomes

- **ACTION BASED AND ORIENTED**
  - supporting and/or enhancing the strategic action that leads to community transformation and social change

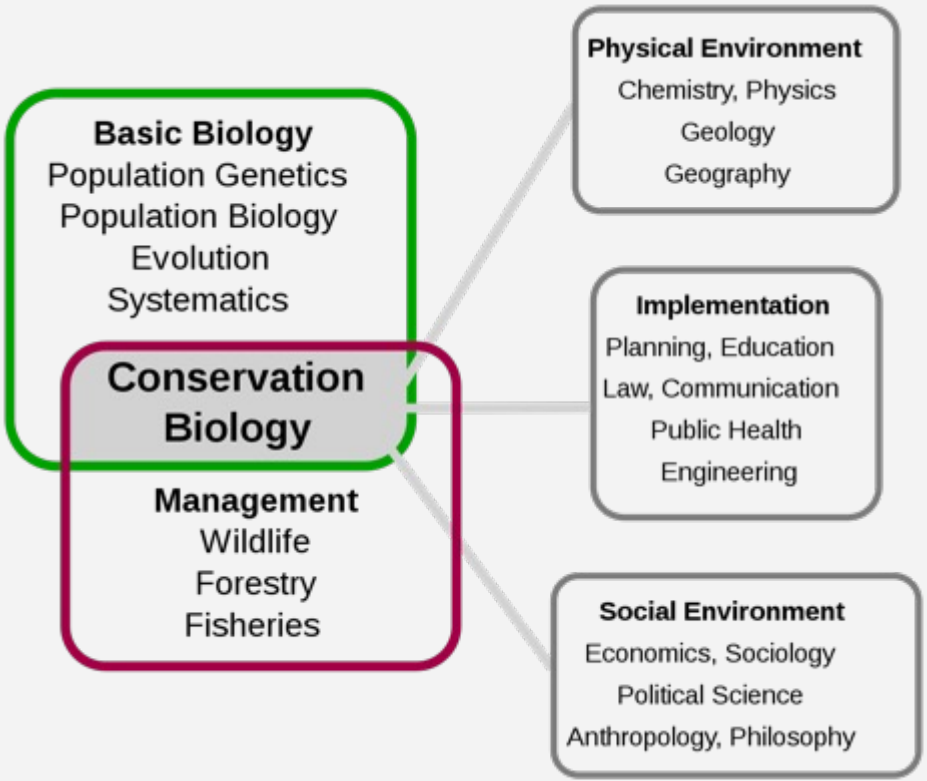
Multi-disciplinarity is crucial for conservation

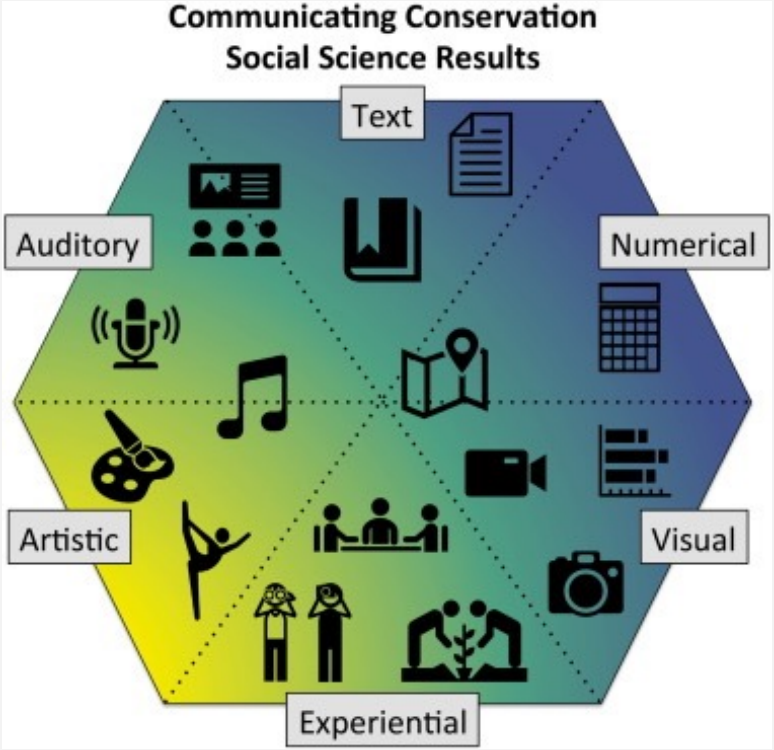
- Need to:
  - know the community,
  - establish strategies,
  - build networks,
  - mobilise communities

- Bottom-up facilitators



Long Mead: Conservation is multi-disciplinary



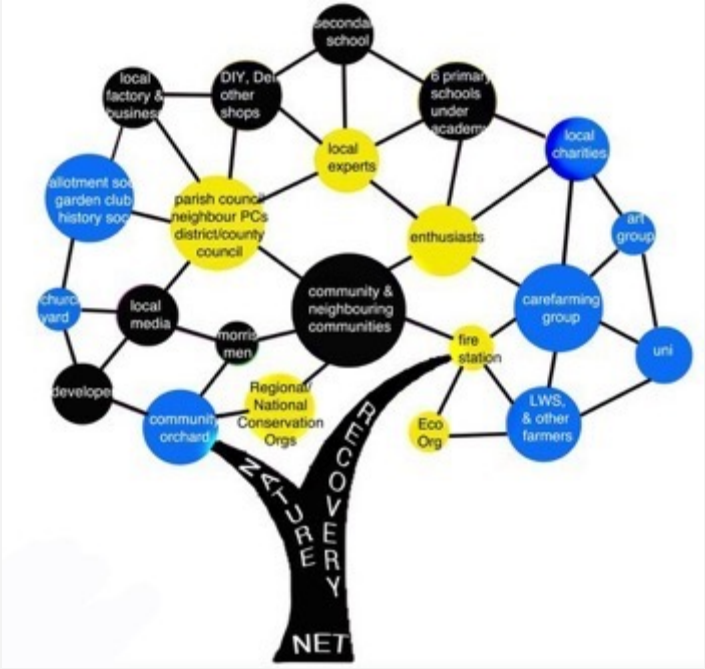


- Requires engaged and informed community

Long Mead:

- Collecting data, which is facilitated through monitoring, surveying work with potential manipulation to come.
- Community-led network, as being created here, facilitates some wider aspects with direct communication with stakeholders by stakeholders – a farmer championing restoration efforts will always make more headway than someone not directly experiencing the impact of conservation.
- The expression of nature through art, which is the added value to the appreciation of conservation, is not stimulated by science.
- Experiential – you can tell someone the importance of conservation, they can walk through conservation areas and appreciate the flowers but truly valuing conservation comes from experiencing the process first-hand and giving people opportunities to own a part of the responsibility and successes.
- There is one aspect, in particular, that I really like and that is the connectiveness to the care-farming group, giving individuals with disabilities an opportunity to make meaningful contributions.

Long Mead/*Nature Recovery Network*, Eynsham



- Mobilising community
- Connecting ideals
- Inspiring community who do not readily engage in science

Saturday 24th September 2022

Bird ID Walk: Learn your Tweets and Hoots

Walk with Local Bird Expert Allen Stevens and learn to identify our birds and their songs.

Green Week Stall

Come and see how Eynsham's community organisations are addressing the Climate and Biodiversity Crisis

Crafting for the Climate

Come and see our demonstration of human-powered handcrafts designed to be sustainable, useful and fun!

Bugs in Brooks

What do the Bugs in our Brooks tell us about our Water Quality?

Sunday 25 September 2022

Wild Arts: Fungus Foray and Art Workshop

Join Renee Watson (fungi fanatic) and Alice Walker (fanatic artist) to seek out our autumn fungi in and around Eynsham and then get creative with their magical forms in art.

Thursday 29 September 2022

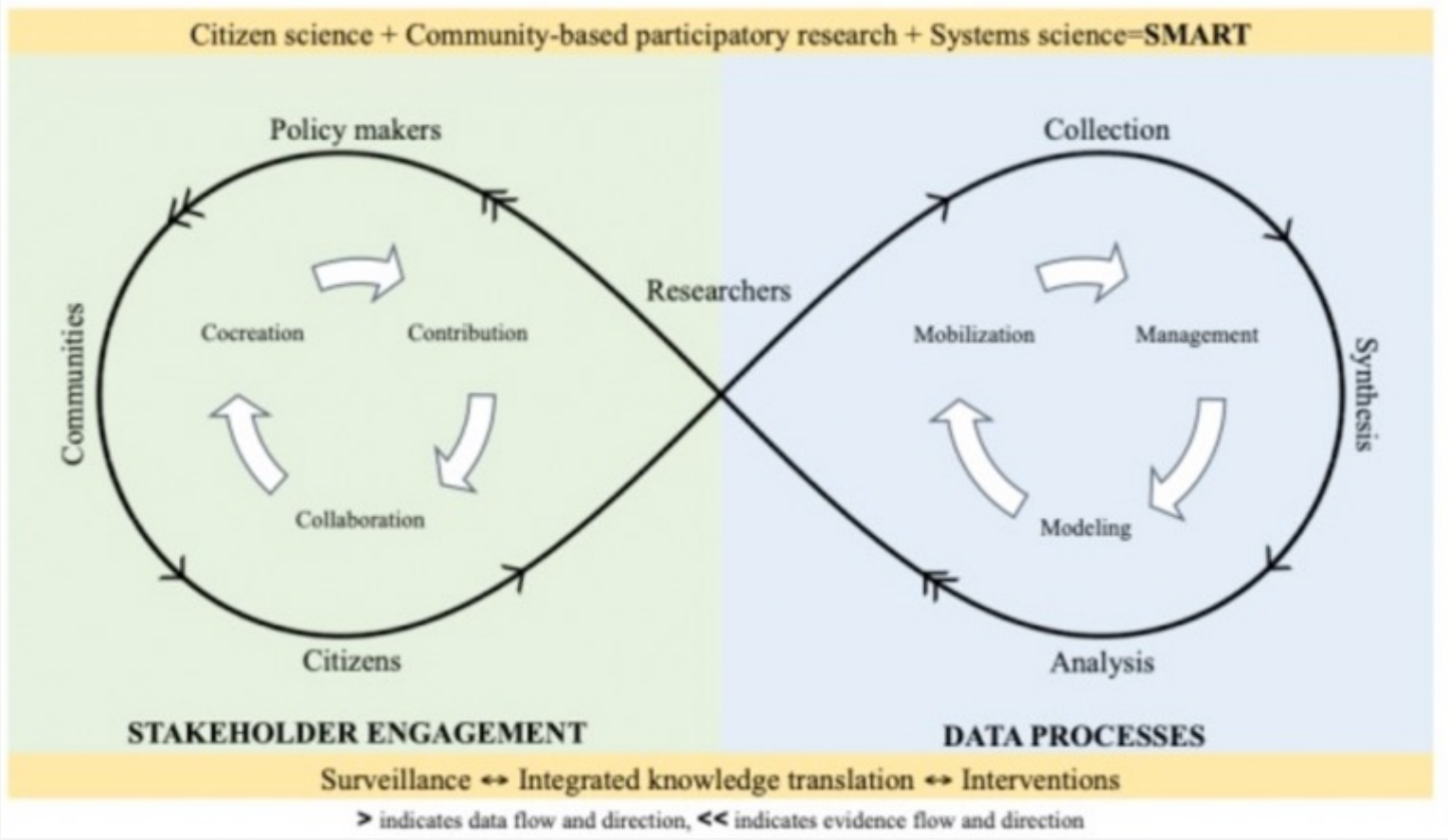
Great Big Energy Saver

Find out about how you can save energy, use greener transport and hear about future energy for Eynsham.

The Benefits of a Plant-based Diet

Display about the environmental and health benefits of a plant based diet Display and quiz on saving Energy in the Kitchen.

E.g. SMART model from health



My involvement to date with Long Mead

Practical application + community spirit

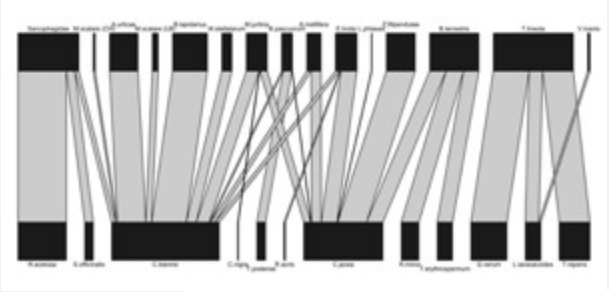
Great networking opportunity

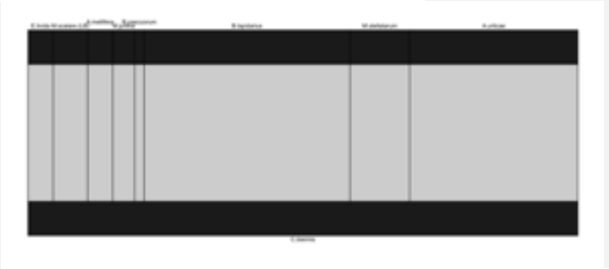
- Building social capital

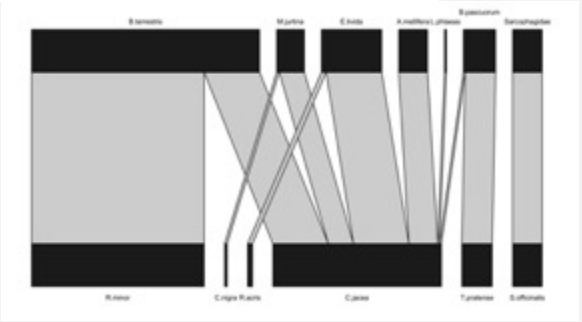
Research projects: tracking restoration

Research projects: tracking restoration

Figure 2: An aerial view of the four sample sites made with ArcGIS. The four sites are Long Mead Local Wildlife Park (outlined in red), 2019 (yellow), 2022 (green) and 2019 (white).







- E.g. pollinator network = duration of visits
- Shifts in duration, frequency and pollinator communities

Long Mead is working great

- Making connections across multiple sectors of community interest
- Network is spilling out to other local habitat enhancement and sustainability activities
- Great success in creating connectivity along the river and convincing other landowners
- Facilitating connections with researchers that are leading to connections between researchers – engaging entomologists, botanists, grassland ecologists, etc.

OXFORD BROOKES UNIVERSITY

THE END and THANKYOU!!