Wild trout in the Wharfe: Fish passage & habitat restoration

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Our canary

'Sentinel' or 'totemic' species



Healthy trout populations reflect a healthy, functioning ecosystem



Wharfe (waterway) woes - for trout

- Death by a thousand cuts
- Water Quality
- Water Quantity
- Habitat
- Stocking

Interactive and with feedback

So, what can we do?

All life stages!



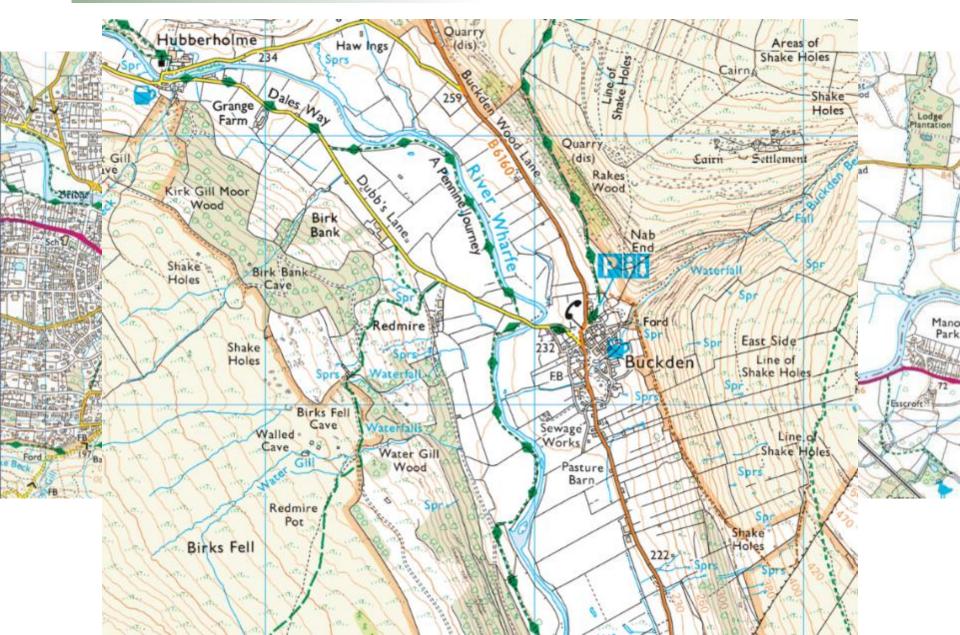
Habitat mosaic...



Habitat mosaic... is often lacking



Constraints in a modern landscape



Barriers, barriers, everywhere....



Lateral connection

MAJOR CHALLENGE ~94% of the length of the Wharfe constrained by artificial banks 'Set in aspic'

Removing redundant structures



Second tier options

- Partial removal
- Modification / notching
- Fish passage solution

"We've never had trophy fish..."

- Legacy of sustained *takeable* fish policy catch & kill
- Removal of effective breeders



Perceived benefits of stocking?

- Provides *more* fish for anglers to catch
 - Not much evidence for this from science or angling clubs (beyond short-term)
- Takes the pressure *off* wild populations
 - angling maybe (short-term), but introduces multiple other stressors – competition / hyperpredation etc
- Provides broodstock to *boost* in-stream breeding

 If this were true, there would be little room for water!
- Introduces *new blood* which strengthens the wild population

 Genetic studies suggest quite the opposite

Restoring the mosaic (@ El Dorado)

- Fenced to restore riparian
- Augmented planting (poor seed bank)
- Accentuated meanders
- Gravel addition
- (removed culvert)

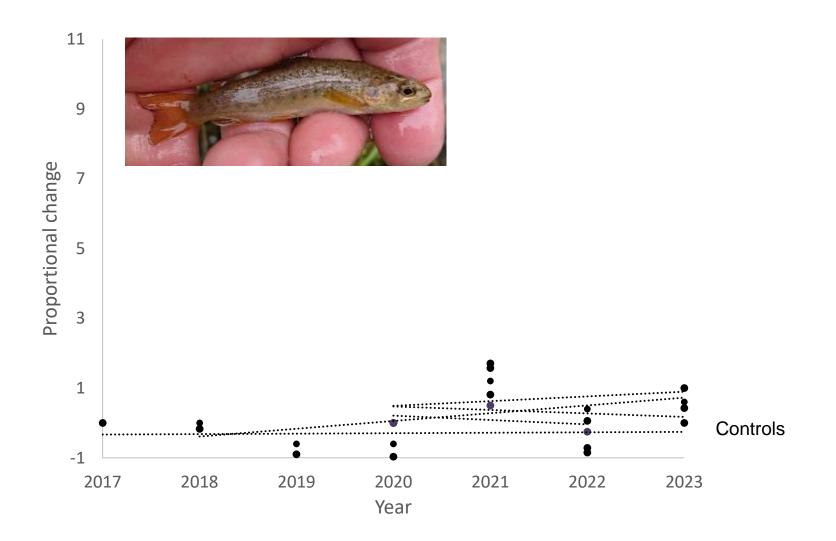
Restoring the mosaic (@ El Dorado)



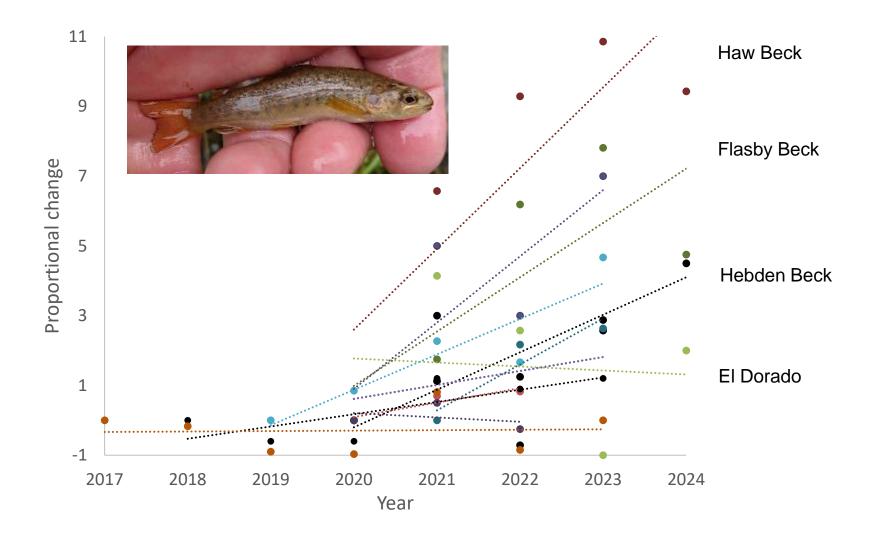
Does it work?



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Lots of historical & ongoing hurdles to overcome....

But, trout (and other species) numbers respond to habitat improvements fairly rapidly

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