# Wild trout in the Wharfe: Fish passage & habitat restoration

Jon Grey – Research & Conservation Officer jgrey@wildtrout.org @ProfJGrey

AEG Jul 2024

### 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!



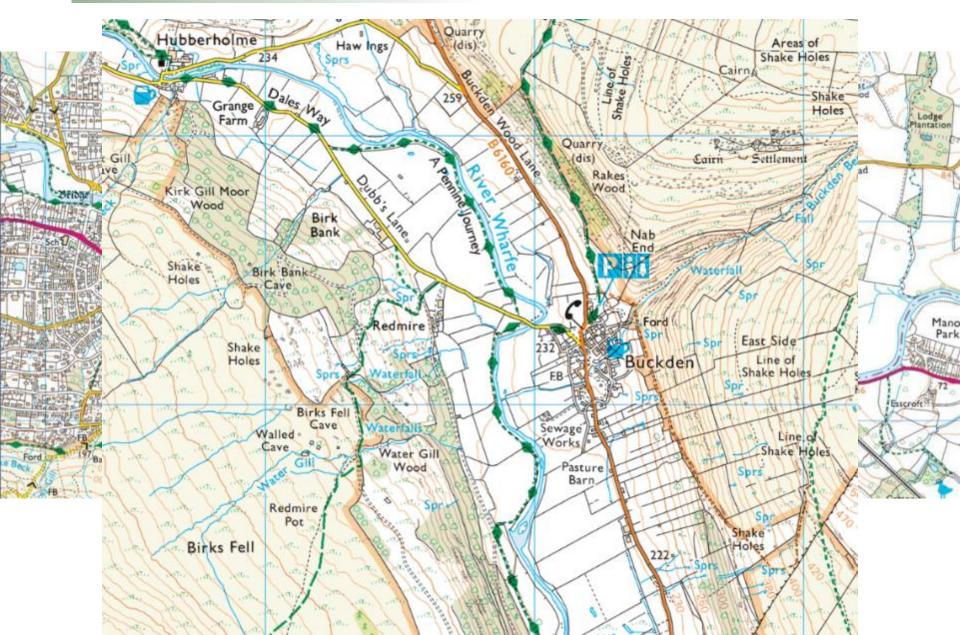
#### Habitat mosaic...



# 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)

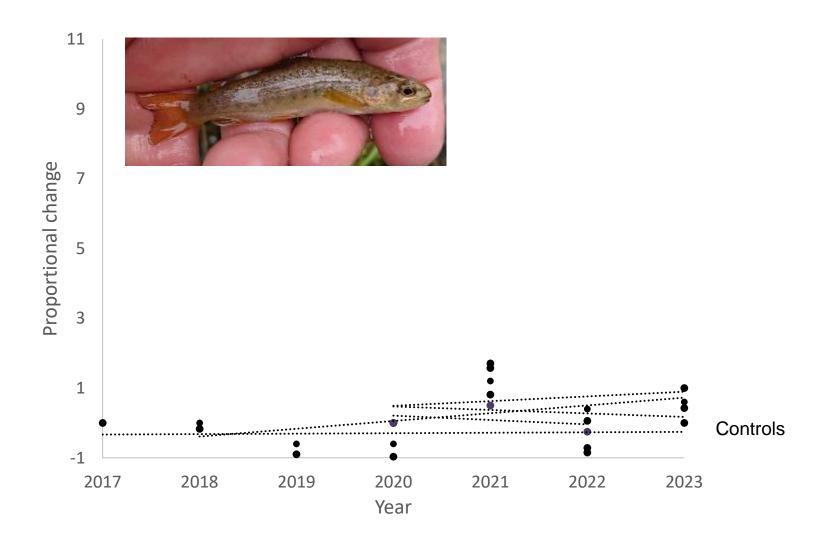
# Restoring the mosaic (@ El Dorado)



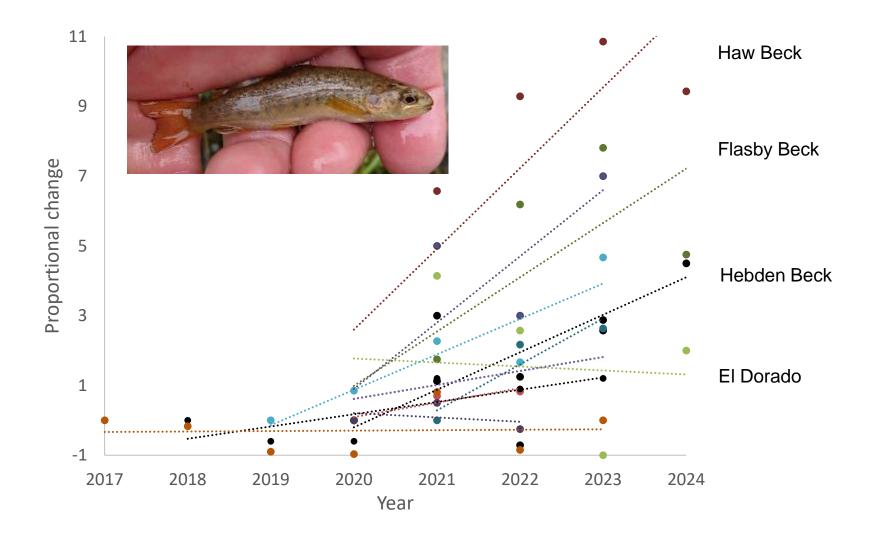
### Does it work?



# TRoUT



# TRoUT



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

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

#### jgrey@wildtrout.org

@ProfJGrey

