

# IMPROVING URBAN BIODIVERSITY THROUGH RELAXED MANAGEMENT, AND ATTITUDES

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# Introduction

The Swifts is Carlisle's newest nature reserve

Once a chocolate factory, then a golf course and now **a nature reserve**

It was transformed through extensive management and careful planting





# The Swifts as a golf course







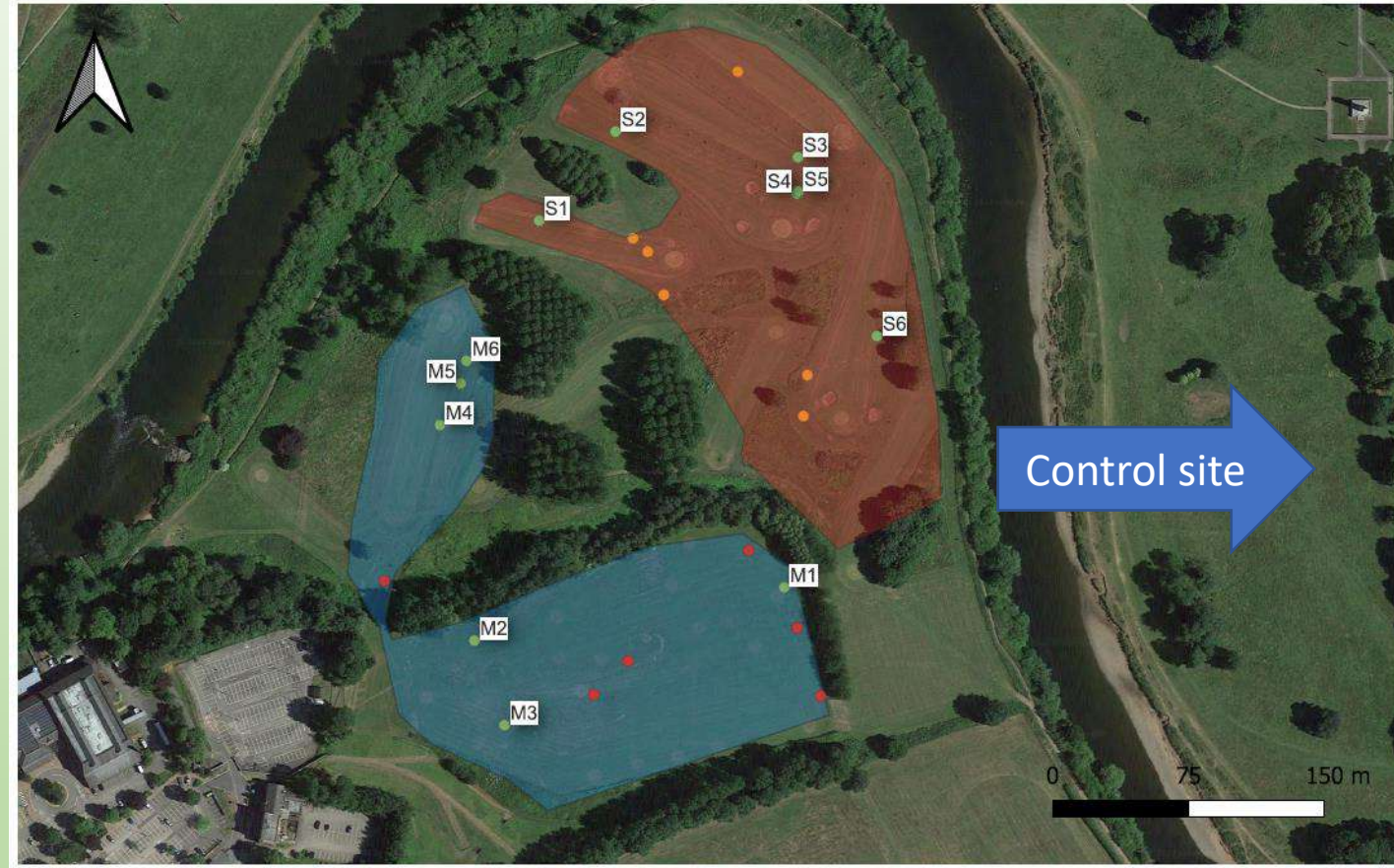
The Swifts Nature Reserve Transformation





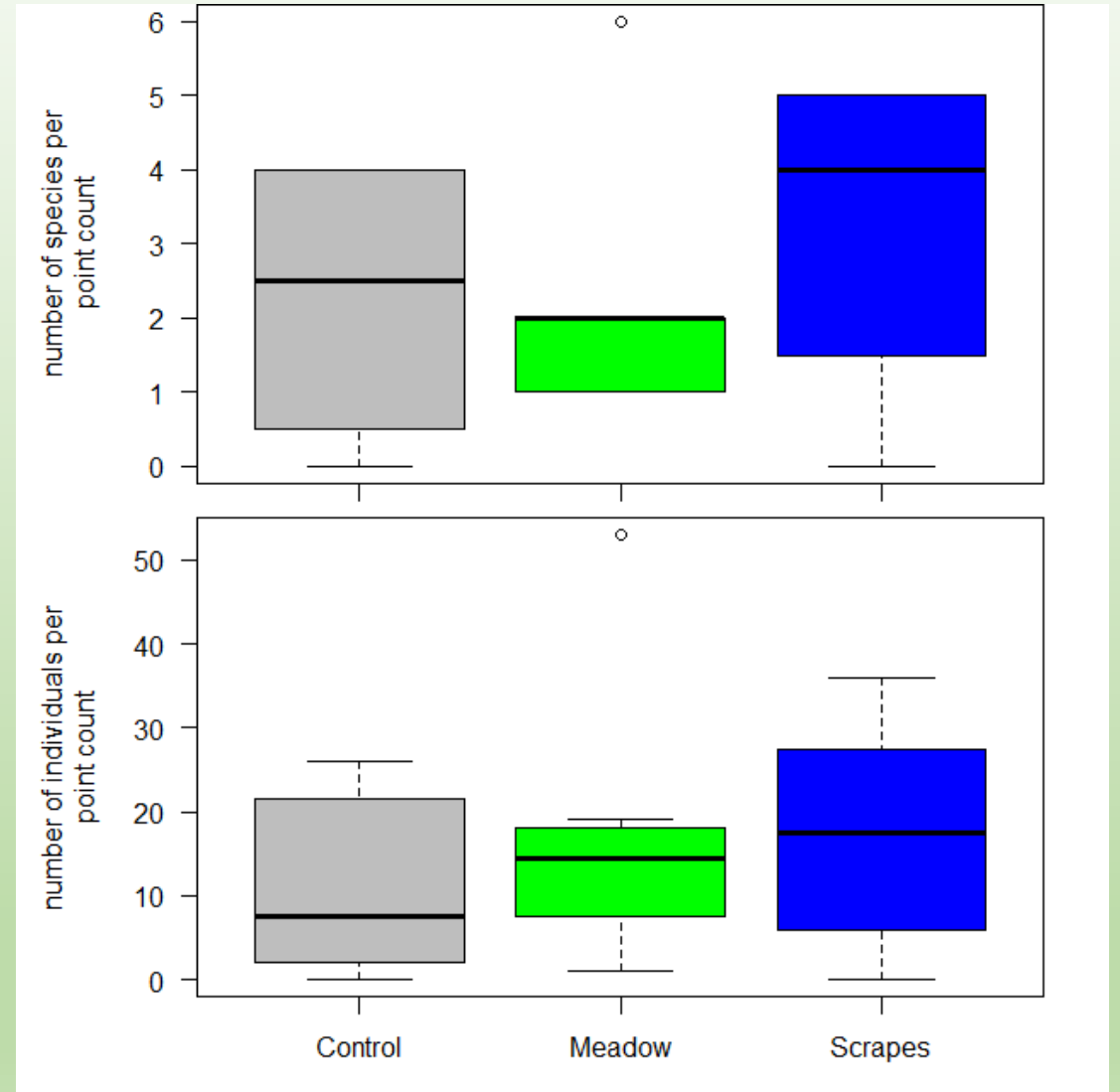
# Monitoring – the messy phase 2021

- Randomised points – three times a season for hoppers
- Fixed for pitfalls – Pitfalls collected July – October
- Suction samples June to September
- Point counts for butterflies



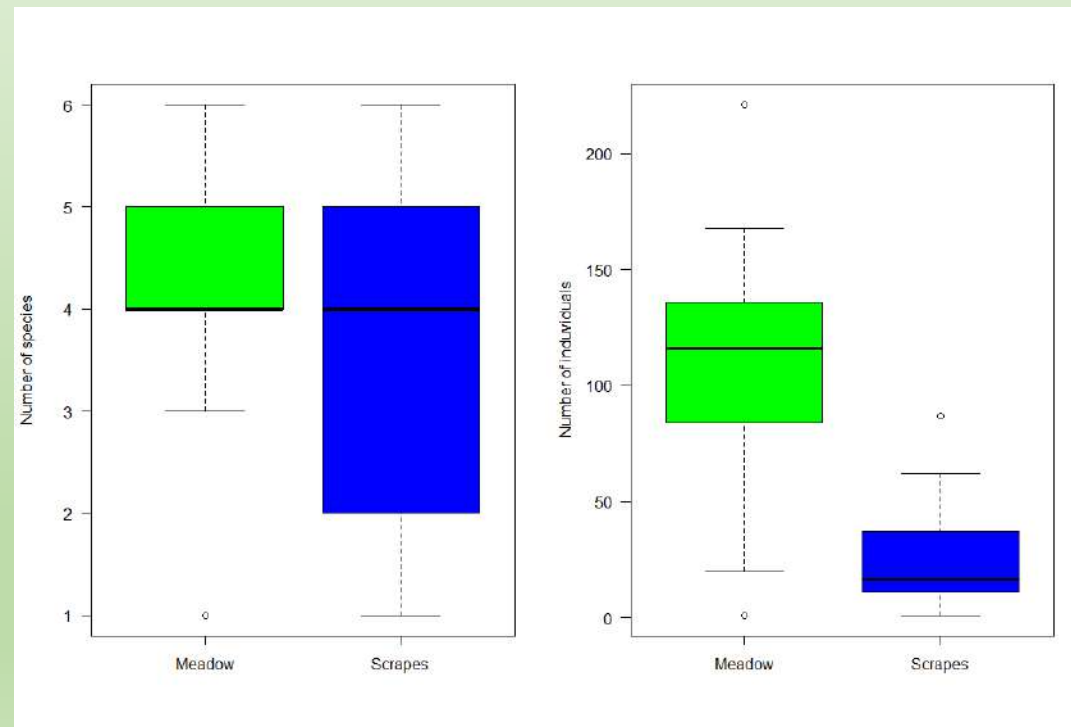
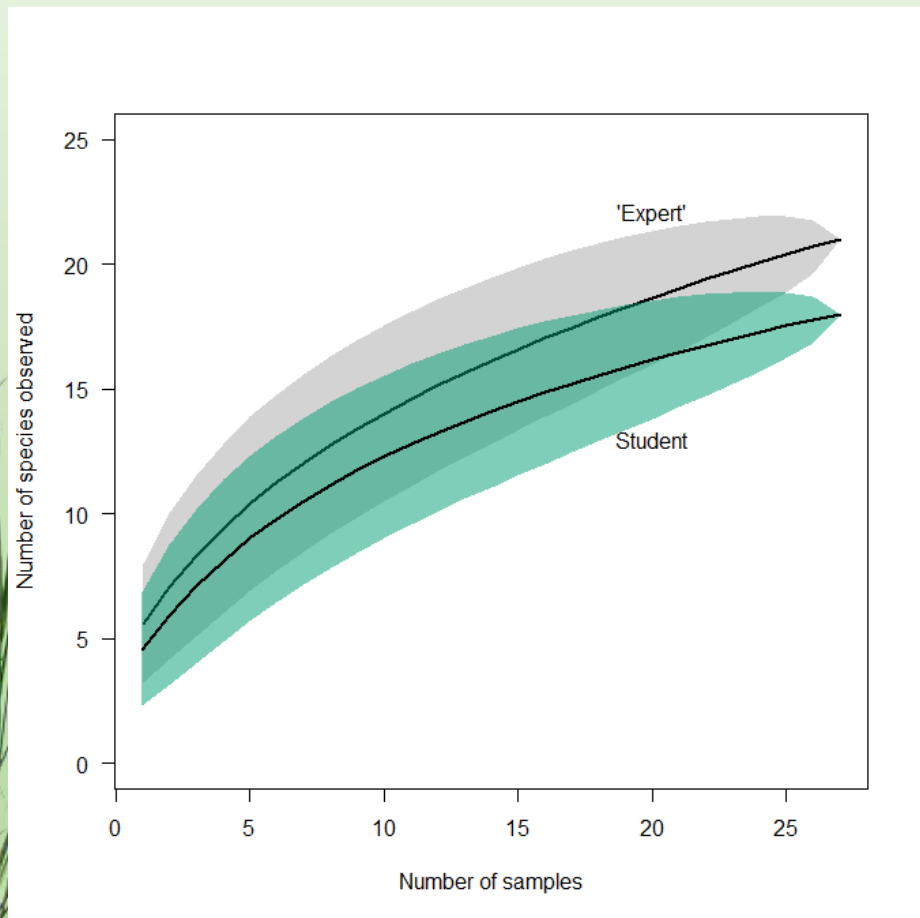
# Butterflies 2021

- 10 species recorded from July to August 26 point counts in 2021
- Students working in small groups over the summer – with larger numbers in the meadow versus the scrapes habitat
- Passive – enjoyable fun, with lots of public engagement
- The students were better at ID than me



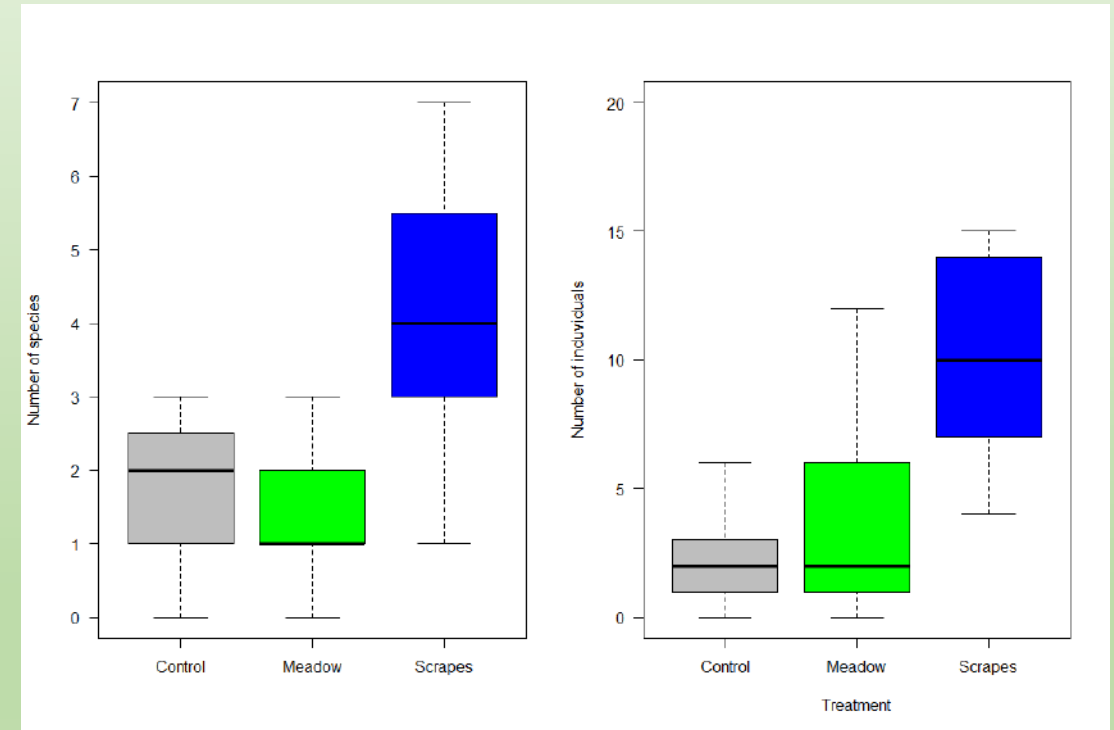
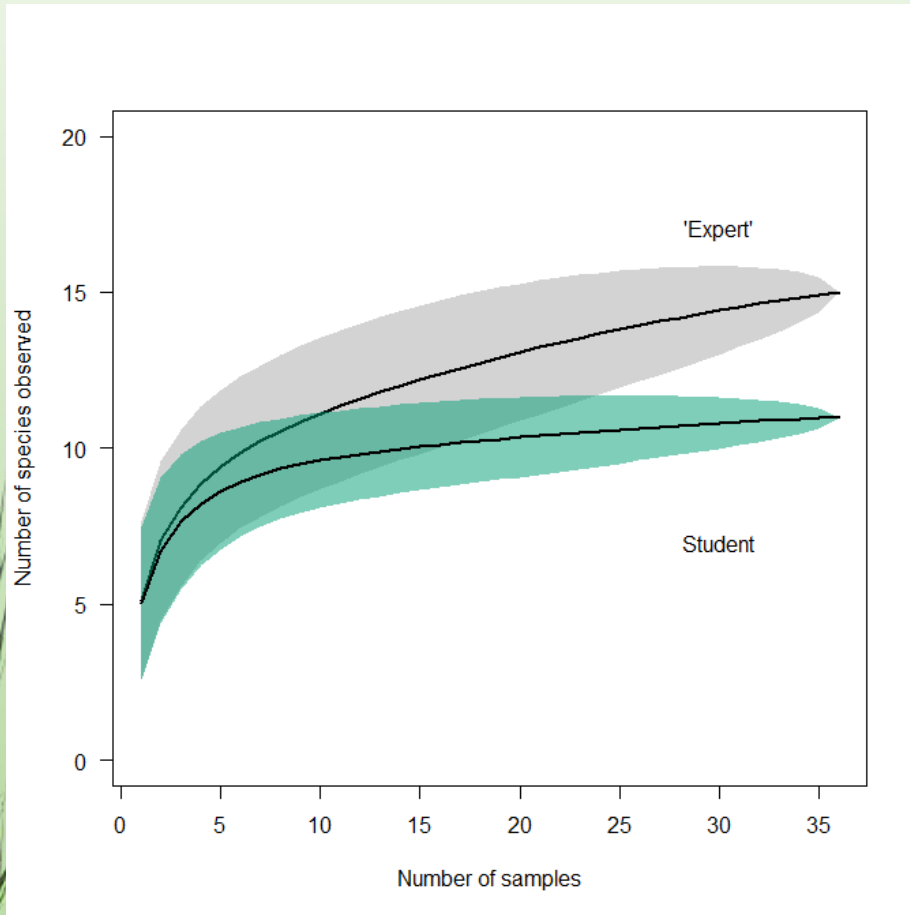
# Ground beetle diversity

- Fairly good identification with some confusion between the less common carabids
- Meadow yielding more individuals



# Leafhopper and planthopper diversity

- Misidentifications are in the minority with 4 species incorrectly identified

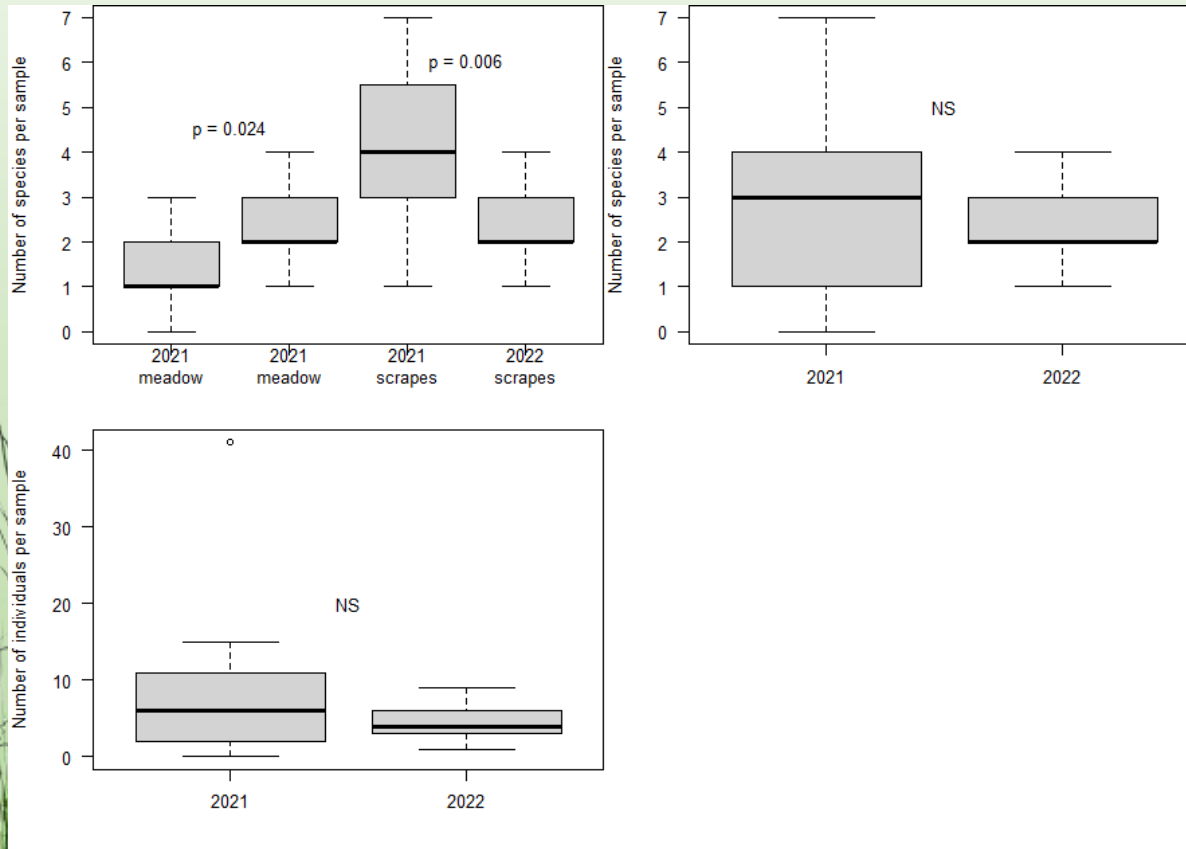




- Database of images of all new species and genitalia dissection kept indexed in a spreadsheet with hyperlinks
- Carabids and hoppers – not butterflies



# Preliminary second year comparisons



- The trend is downward in the scrapes management – slightly positive in meadow although numbers still very low per sample.
- Reduction in area covered by grasses
- Presence of yellow rattle and overall reduction in grass area



# The future for Swifts

- Long term monitoring
- CBDC monitoring day
- University and student projects
- Making the site accessible
- Easy engagement with nature





# The



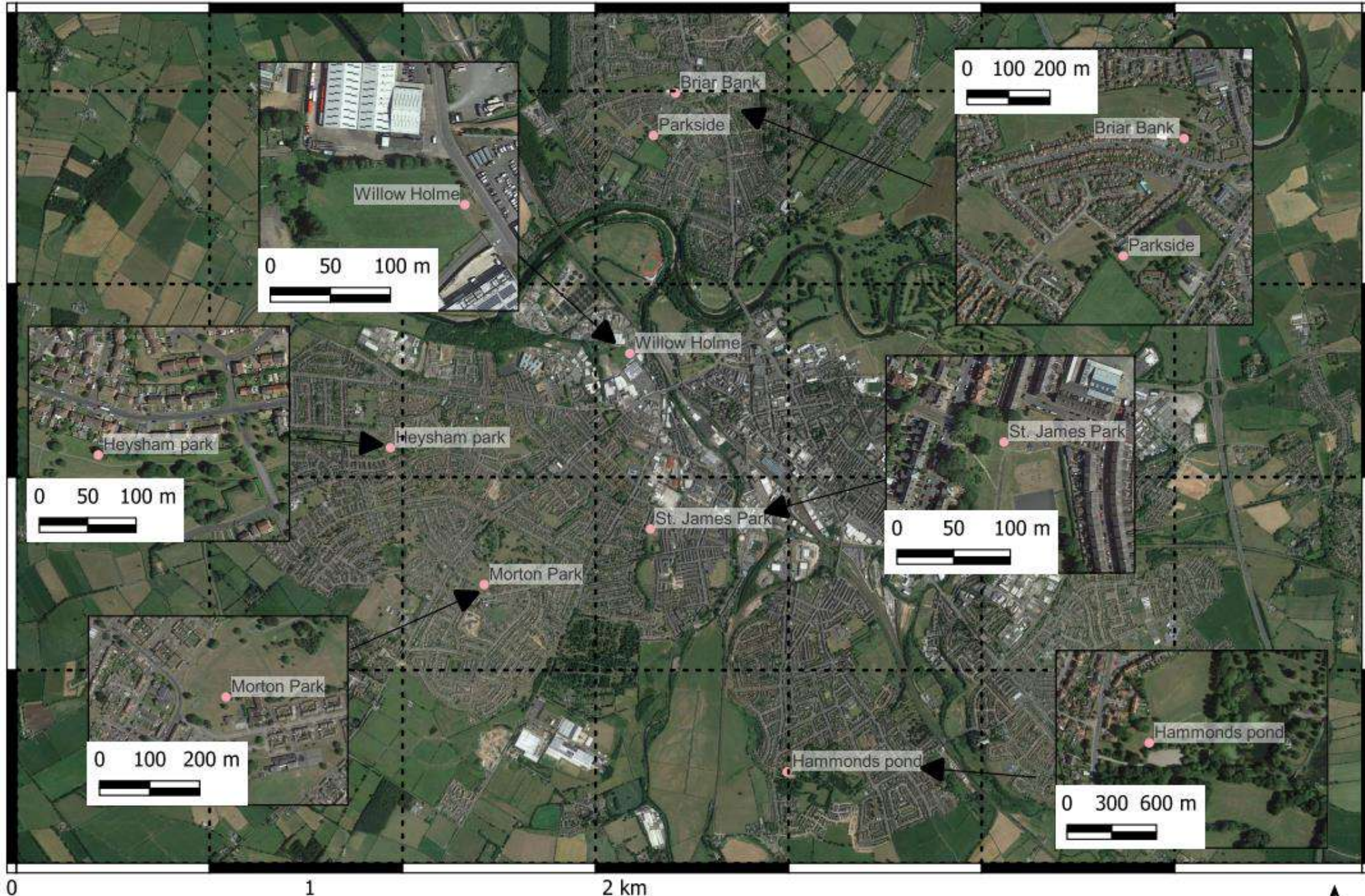


# Next steps a greener Carlisle – Relaxed management and attitudes

- Reduction in cutting on a limited number of urban parks in Carlisle was trailed – 6 hectares of long grass.
- Increase in diversity of insects and arthropods were recorded in unmown grass
- Negative attitudes of the public were offset with positive signage, messaging and website.











#### 4) Willowholme

- Conservation Grasslands
- Insect Overwintering Habitat - 1
  - Insect Overwintering Habitat - 2
  - Autumn Annual Cut & Clear
  - Access



Date: 15/02/24  
Scale: 1:400

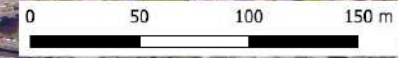


#### 1) Chance's Park (Morton Park)

- Conservation Grasslands
- Insect Overwintering Habitat - 1
  - Insect Overwintering Habitat - 2
  - Autumn Annual Cut & Clear
  - Access



Date: 15/02/24  
Scale: 1:1200





# Signage and getting the public on board

- QR codes linking to information on what's going on – real time data
- Information on why it is important to mitigate insect decline
  - Subtle reminder to the public that it is not all about the bees

<http://tinyurl.com/jabws3bh>





# Involvement of schools and the community

- Each park **tied** to a school – and those schools use it as a resource schools can be used in the monitoring.
- One hour taught session where the kids are just let loose into the grass
- **TAKE HOME:** Kids love this – it's the parents who are obsessed with their plastic lawns and hot tubs



The screenshot shows the homepage of the Cumbria Crack website. At the top, the logo for 'cumbriacrack' is displayed with the tagline 'FIRST FOR LOCAL BREAKING NEWS'. Below the logo is a navigation bar with links for NEWS, SPORT, BUSINESS, WHAT'S ON, JOBS, and GET OUR APP. The main content area features a large banner for a holiday deal at Melia, offering 'Up to 30% off' and '1st child and cancellation free\*'. Below the banner is a news article titled 'Carlisle youngsters go on bug hunt in city park' by Cumbria Crack, dated 21/07/2023. The article includes social media sharing options for Facebook and Twitter. To the right of the article is a blue sidebar with a 'Your projects deserve better.' advertisement for monday.com, a 'Subscribe to Our Newsletter' form, and a 'Trending' section.





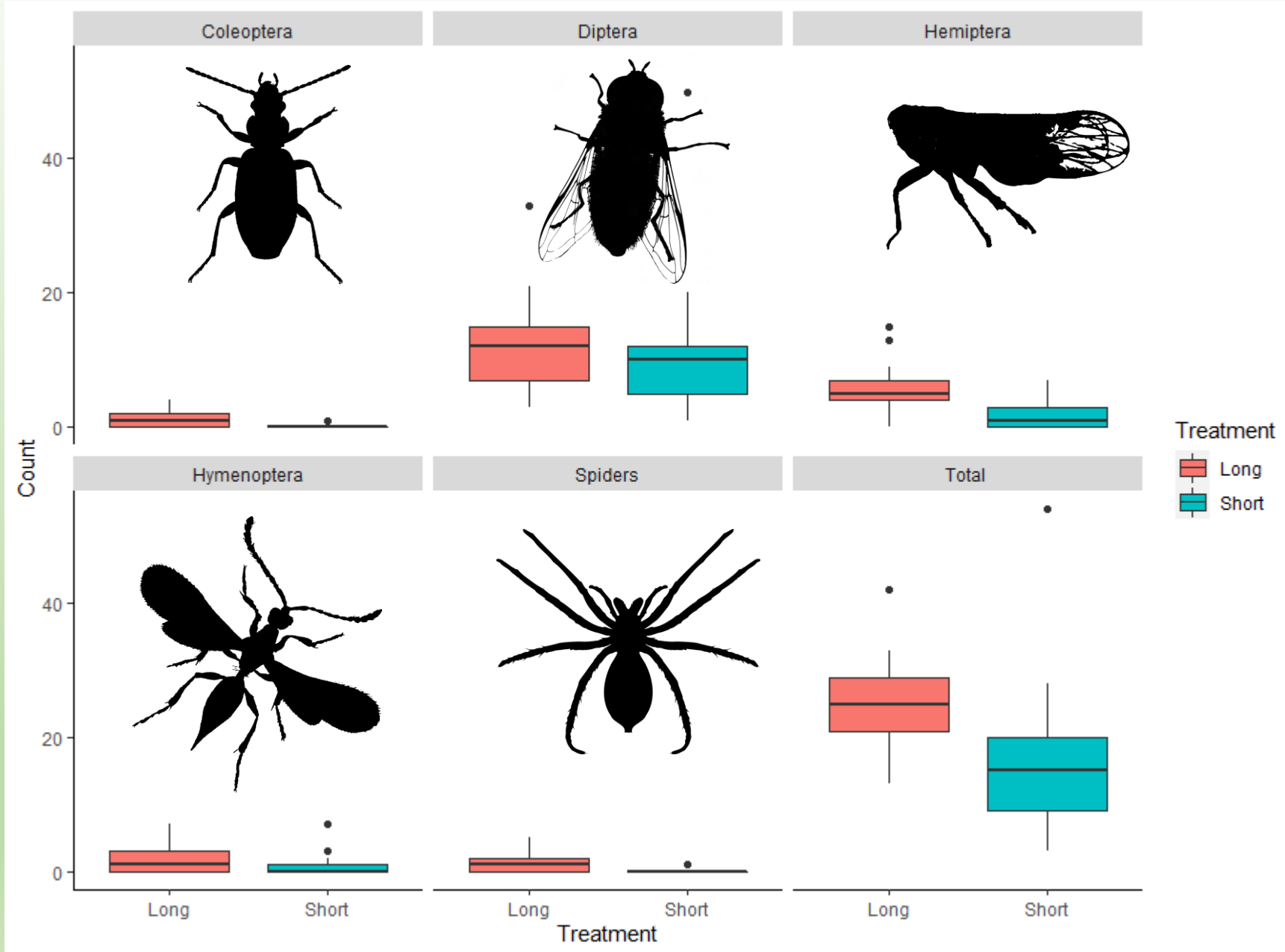


# The evidence

- Most taxa increasing from the uncut to long grass areas – no real surprise
- Each taxa responding slightly differently
- Some unusual species turning up in pan traps and sweep netting...

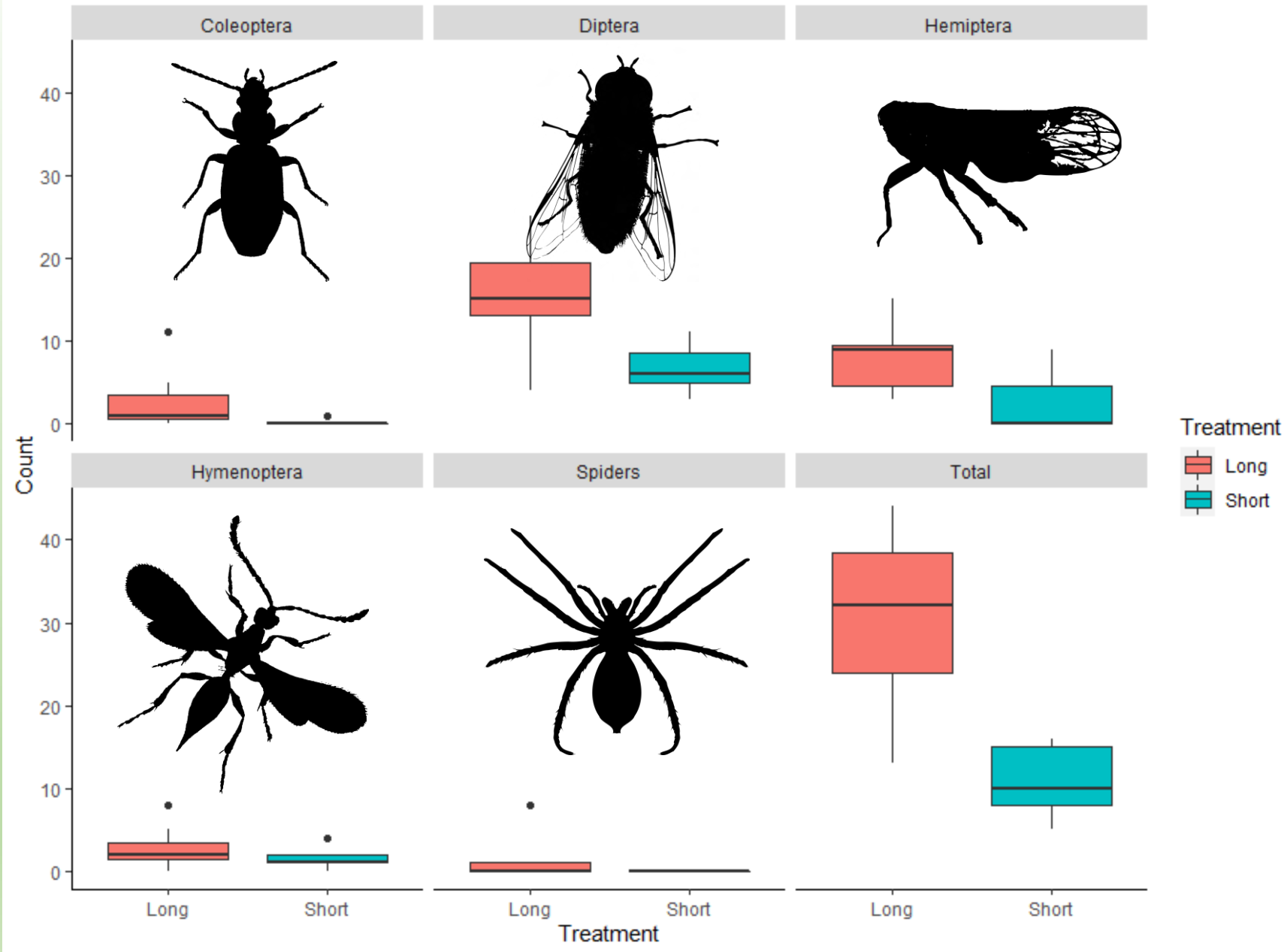


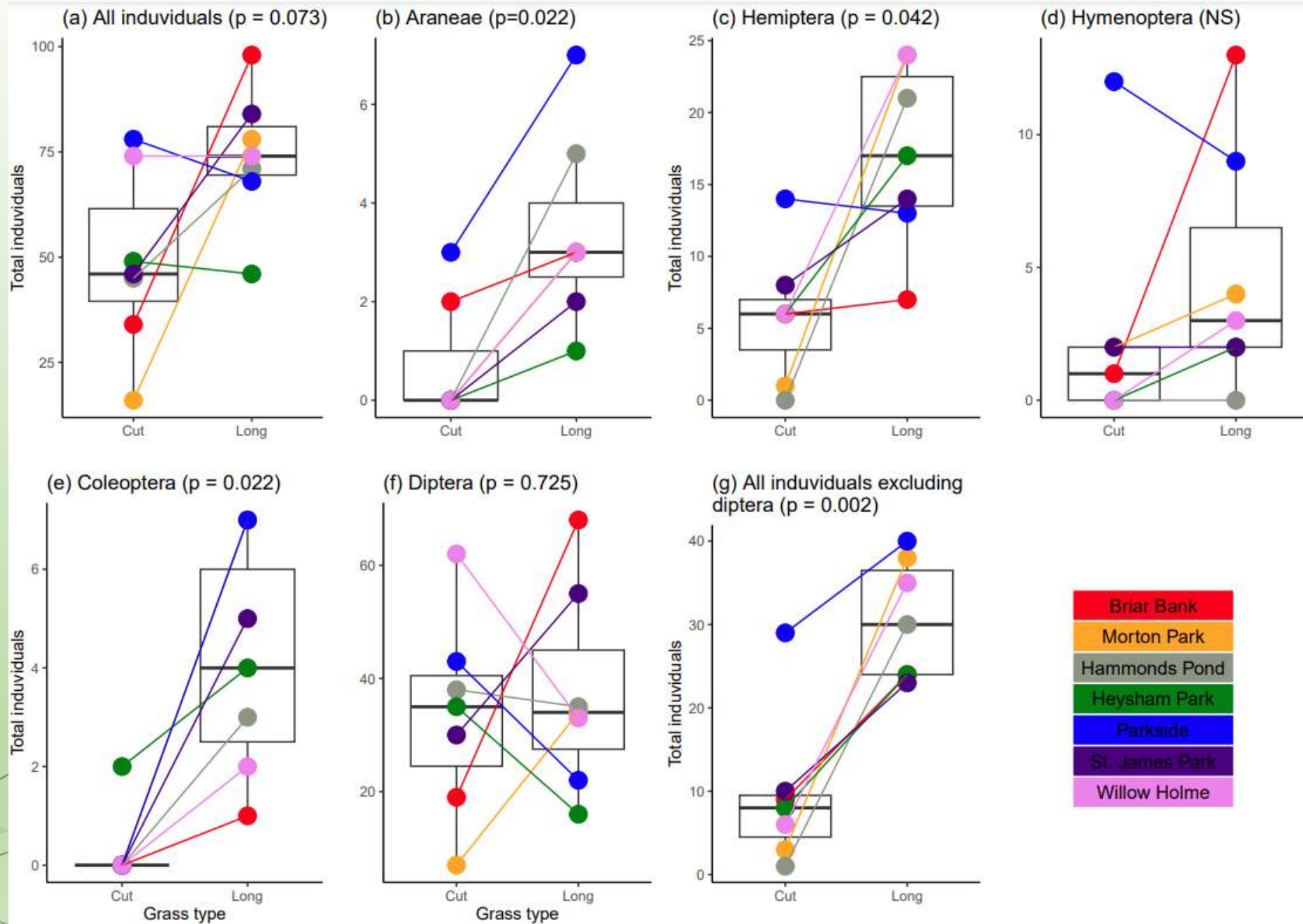
# May Sweep nets





# August sweep nets





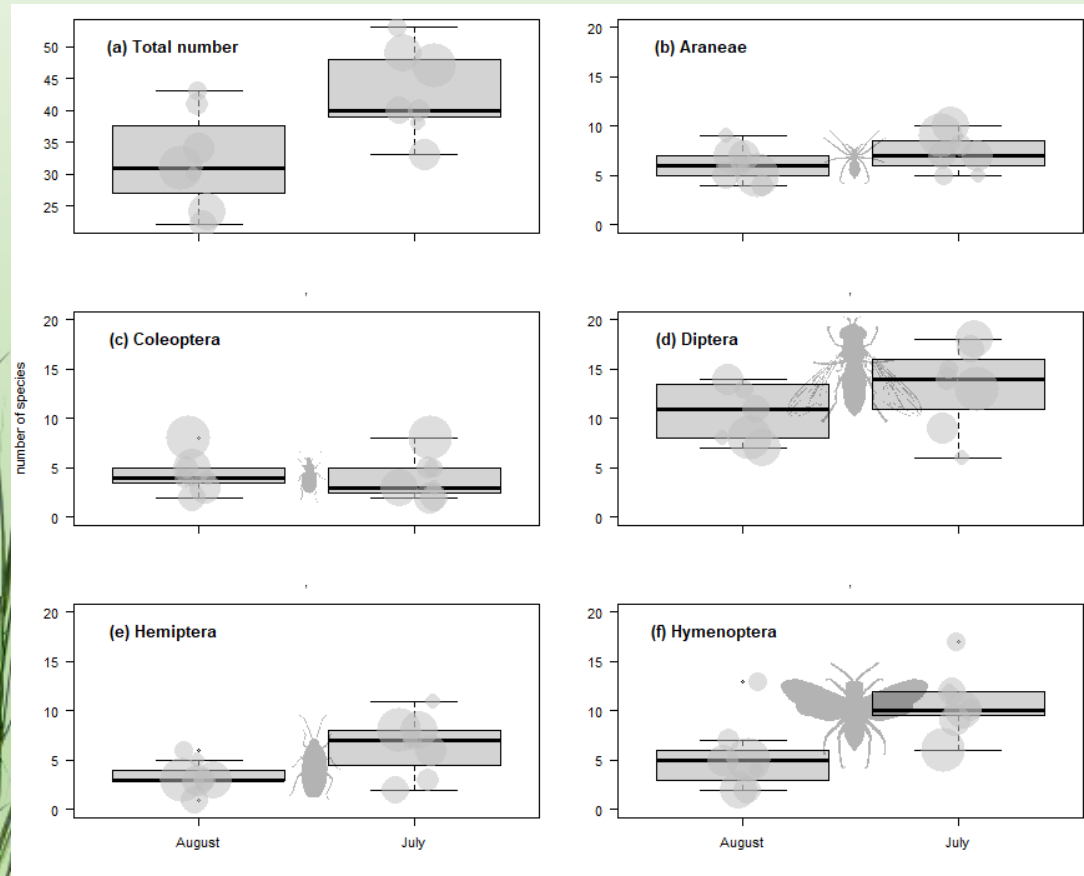


# Overall

- Number of arthropods is doubling in the long grass versus the mowed grass areas.
- Changing the management for a third of a site, would AT LEAST double the number of insects for a whole site!



# Pan trap data – species richness



- Pan traps giving a good indication of species richness on the sites
- No evidence that there is a species area relationship effect



# Community outreach – the future

- Schools – getting schools to adopt a grassland!
- Working with university partners, local biodiversity data centre, and Tullie Museum
- Signage for peoples' gardens
- Yearly monitoring days / Bioblitz events
- University to adopt projects for monitoring
- Roll this out over all of Cumberland!
- Since 2023, now doubled from 6ha to 12ha of amenity grass left long.

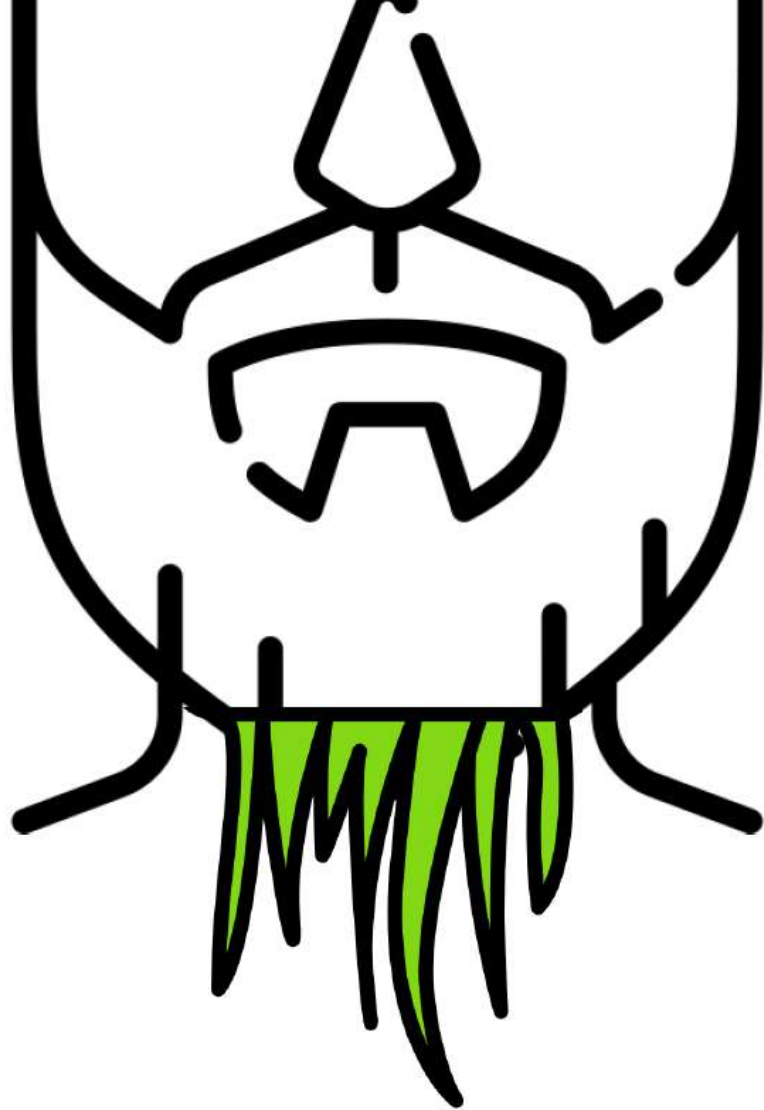


# Take homes

- It is cheap!
- It has a massive impact at the local scale
- It potentially makes maintenance teams jobs easier – particularly on wet / sloped ground







## Relax in the park by Chris Reed

I shave every day before work.

At weekends and holidays, I don't always shave.

Letting grass grow is the same.

It reminds the outdoors to relax and not work too hard.

Let our open space set the tone for the humans.

Relax in the park.