

# REPAS

## Survey & Workshop Initial Findings



Research Centre  
Agroecology, Water  
and Resilience



# What Did We Want To Know?

- Demographics (survey)
- What you are growing, where and how long?
- Pollutants in soil and level of concern
- What plastics are being used in gardening
- How plastic is getting into your soil (currently and historically)
- Any changes made to gardening practices as a consequence?



# How Did We Find Out?

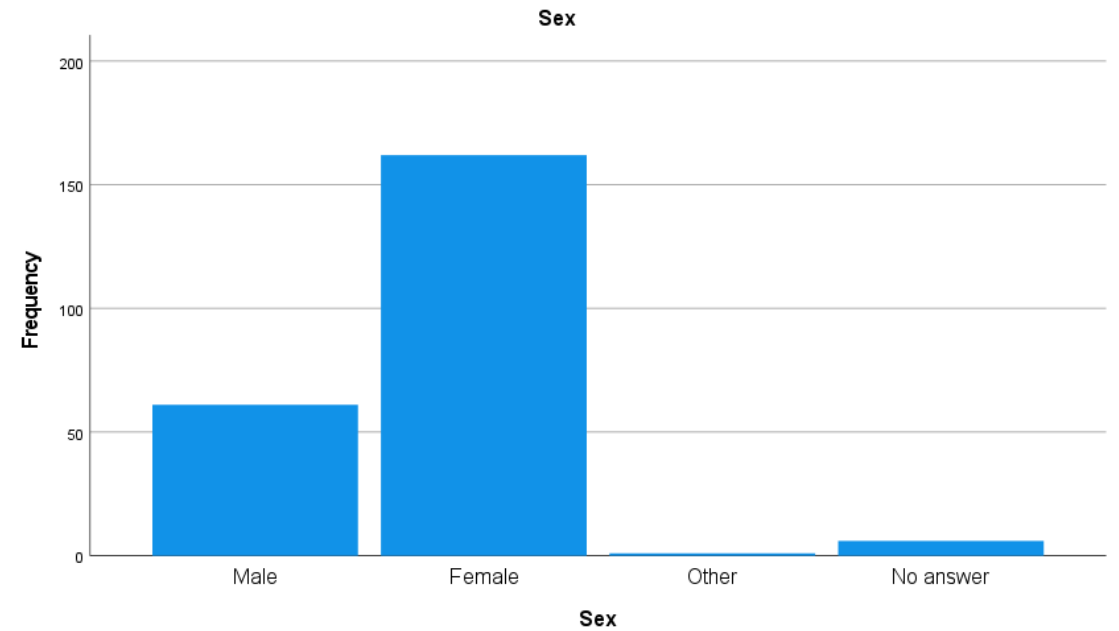
- Online Survey
- Face-to-face Workshops (90 mins – 6 hours) across 6 locations:
  - Coventry
  - Cumbria
  - Leicester
  - Norfolk
  - North Somerset
  - Shropshire

Facilitated by Garden Organic



# Demographics (survey)

- Number of Participants: 243
- 61 men
- 162 women
- 1 other
- 116 self-identified as White British
- Mean time gardening: 31 years
- Mean age 61 years (range 23 – 84 years)



		ethnicity			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White British	116	47.7	50.4	50.4
	British	25	10.3	10.9	61.3
	Mixed British	4	1.6	1.7	63.0
	White European	12	4.9	5.2	68.3
	White	39	16.0	17.0	85.2
	English	5	2.1	2.2	87.4
	Hispanic	1	.4	.4	87.8
	No answer	9	3.7	3.9	91.7
	White English	7	2.9	3.0	94.8
	Welsh	2	.8	.9	95.7
	Other	4	1.6	1.7	97.4
	European	1	.4	.4	97.8
	White Scottish	3	1.2	1.3	99.1
	Chinese	1	.4	.4	99.6
	British European	1	.4	.4	100.0
Total	230	94.7	100.0		
Missing	System	13	5.3		
Total		243	100.0		

# What's being grown and where ? (survey data)

Type	No of people	Where	No of people
Vegetables	225	Allotment	96
Soft fruit	212	Back garden/private	211
Top Fruit	193	Community garden	26
Herbs	208	Container	66
Ornamental Plants	194	Front garden/private	124
Lawn	179	Other (field, small holding, business garden, farm)	13
Wild Flowers	186		
Shrubs	184		
Trees (non-fruit)	160		
Hedgerows	143		
Other	23		

# What's in your soil and level of concern?

Pollutant	No. of people	Level of Concern (Mean)
Plastic	216	2.79
Heavy Metals	134	2.03
Pesticides (including herbicides)	215	2.52
PFAS	184	2.57



Other pollutants included:

Glass, Pathogens, Nitrates, Floride, Paint, etc.

Scale:

0 = not applicable

1 = not at all

2 = slightly

3 = moderately

4 = very

# Plastics used in gardening (survey data)

Type	No.
Cloches	83
Compost Bins	170
Pots	223
Modules for plant raising	182
Other containers (e.g. plastic buckets)	234
Gardening tools	87
Ground covers	117
Netting	186
Packaging	176
Plant labels	186
Plant support	78
Plastic tree guards	38
Polytunnels	95
Twine/plant clips	88
Water Hoses	204
Other	19



# How is plastic getting into your soil ? (survey & workshops)

- **Gardening**

- Degradation of pots/gardening tools/gardening paraphernalia
- ground cover
- Spread by mowing
- “Green” compost
- Historic gardening practices

- **Environment**

- UV light
- Wind – e.g. litter blown into allotment
- Rainfall
- Foxes

- **People**

- Previous owners/tenants/children
- Lack of awareness/ignorance
- Building work/construction

*“I think UV rays, wind, rain, etc break them down and the particles get to the soil”*

*“Degraded plastic film, trimmed plastic pots, lego...”*

*“Detritus from building materials. I live on a housing estate that was built 20 years ago and there were materials left in the soil from construction.”*

*“The previous tenant had used pieces of old foam backed carpet and I’m still finding small sections of it dotted around...”*

*“Plastic present in mulches and composts”*



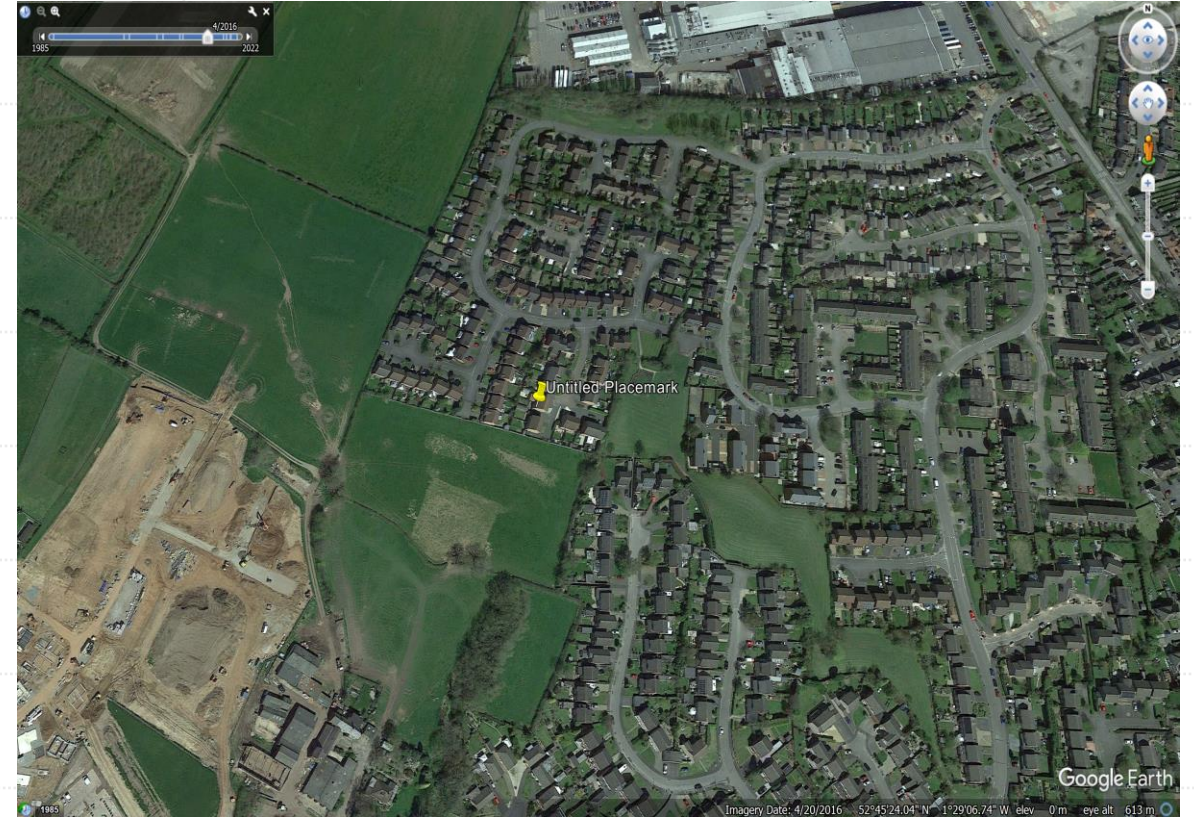


# Example of Historical Land Cover Change: Glenalmond Close, Ashby-de-la-Zouch

1999



April 2016



# Glenalmond Close, Ashby-de-la-Zouch

September 2016



May 2017

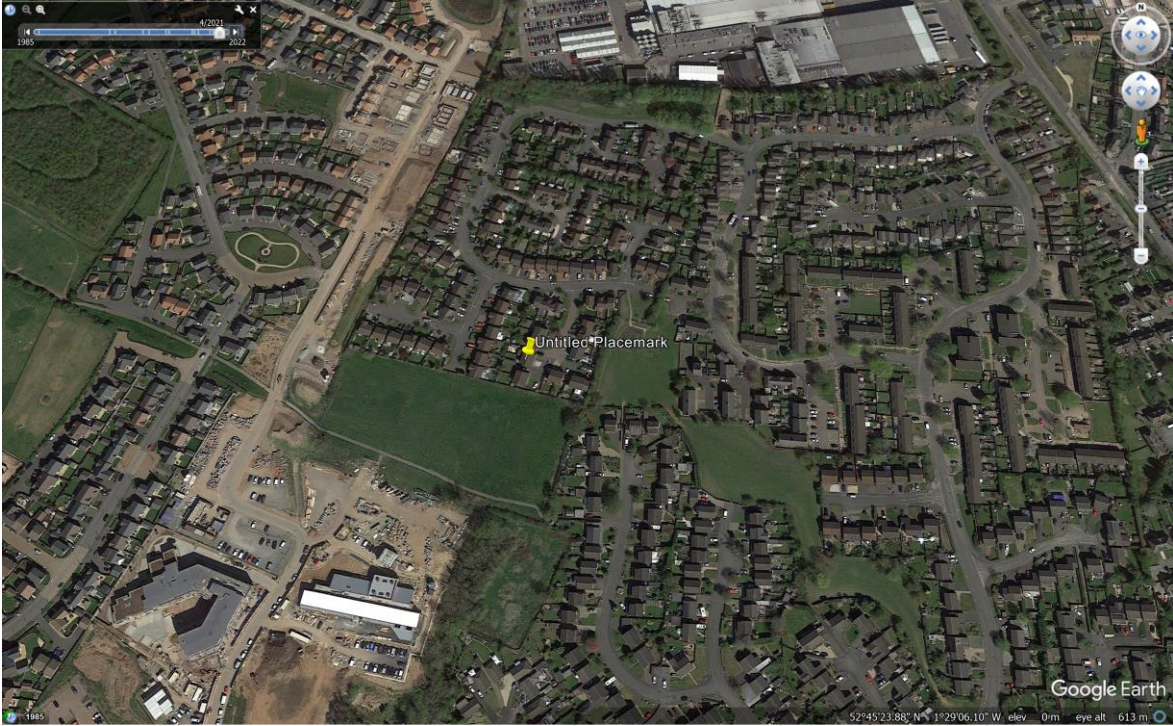


# Glenalmond Close, Ashby-de-la-Zouch

2019



2021



# Glenalmond Close, Ashby-de-la-Zouch

1999



2022



# Concerns about plastic in soil? (workshops)

- Health – soil, human, environment
- Aesthetic damage
- Plastic entering water
- Presence in food-chain
- Soil microbiology
- Lack of knowledge (private and public)
- Physical hazards (e.g. animal entanglement, flood risk, etc.)
- Exploitation by industry (greenwashing)



# Have you made changes to your gardening practices (survey)?

## Why/why not (survey & workshops)?

Response	Number
Yes	188
No, but I intend to	34
No	3
Not applicable	4



- If 'Yes' – changed type of gardening paraphernalia used (e.g. stopped using plastic pots, “Mypex”, etc), reduce/recycle/reuse, making own compost, not buying new plants, etc..
- If “No” – not aware there’s a problem, impossible to avoid, it’s more convenient/long-lasting/cost-effective and I reduce/recycle as much as possible,