

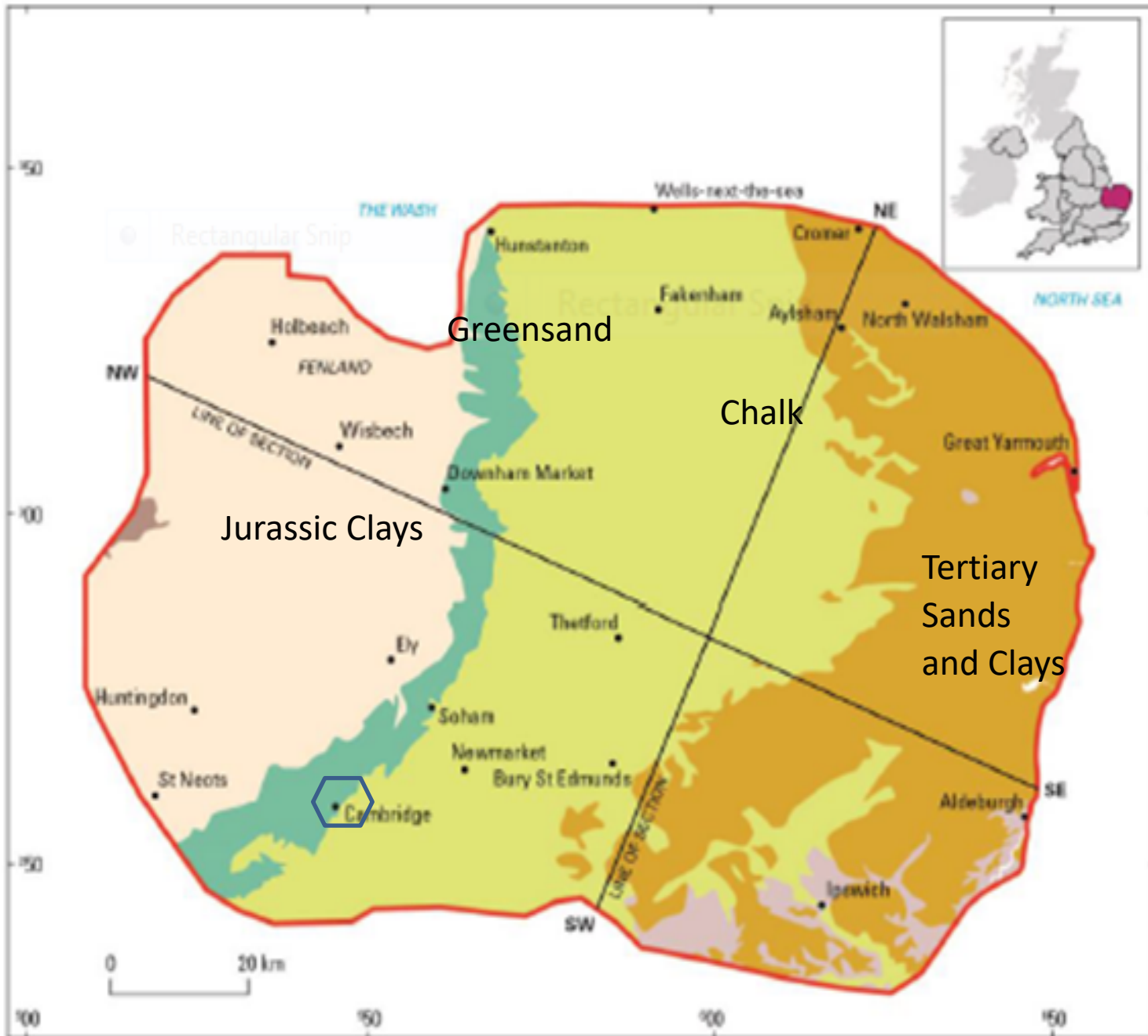


# NEWNHAM

## Habitats and Wildlife

OLWEN WILLIAMS







# Geology

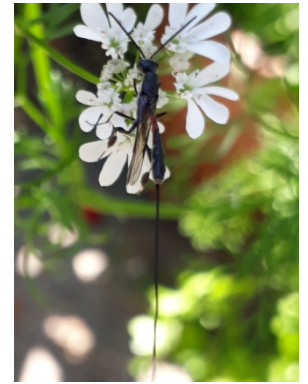
- Chalk to the east and clay to the west
- Alluvial and river terrace deposits of sand and gravel cover the clay
- Underlying Gault clay surfaces at Bolton's pit
- The lake formed after clay was extracted for brick making





# 1,000 years ago

- Meandering unconstrained river with water meadows liable to flooding
- Few scattered farms, tracks and footpaths
- Agriculture, with fields and hedges on higher ground
- More woodland
- Many more insects and other invertebrates
- Mammals, e.g. beavers, deer, wild boar, possibly wolves (though lynx and brown bear had already gone)



# Newnham College and Ridley Hall

Barton Rd

Bolton's Pit

Grantchester Road

120 years ago

River Cam





Mill Pond

E 0°05'49.92"

E 0°06'15.84"

N52°11'47.04"

E 0°06'41.76"

CB3 9JG

# How much is left?

- Habitats of river, water meadows, cultivated land
- Traces of original tracks and hedgerows
- Some of the original plants
- **Huge loss of invertebrates**
- Birds, fish, reptiles, amphibia
- Mammals (now largely nocturnal)
- Three nature reserves : Paradise, Skaters' Meadows and Sheep's Green



# The Green Corridor



- Newnham is the most wooded area of the city
- Extending between open country and city centre, the river forms a vital link for wildlife
- The Cam supports fish, bats, birds, grass snakes, water voles and otters  
(as well as swimmers, punters and canoeists)



N52°11'47.04"

Mill Pond

5.84"

E 0°06'41.76"

E 0°0'

Newtown





E 0°05'49.92"

E 0°06'15.84"

N52°11'47.04"

E 0°06'41.76"

CB3 9JG

Mill Pond

# Hedgerows



- **Hooper's Rule** – hedges accumulate species with time
- An original hawthorn hedge will accumulate seeds dropped by birds or blown in, so that:
- *“Average number of woody species in a 30yd stretch = **number of centuries** the hedge has been there (+/- 100 years)”*
- By these criteria, we have many ancient hedges

# Newnham's ancient hedges are up to 500 years old





# So, What about the Wildlife!



# So, What about the Wildlife!

- Can't have wildlife without habitat!



- Gains and losses

- The more you look, the more you find

- Rarities



# Plants

- 40-50 Veteran **Willows** on Sheep's Green and along the river have individual management plans
- Flooded **water meadows**: Skaters Meadows  
Sedges, Horsetails, Marsh Marigold, Tubular Water-dropwort in the damper areas, Meadowsweet, Cuckoo Flower, Early Marsh and Common Spotted Orchid, Angelica
- **Butterbur** in Paradise



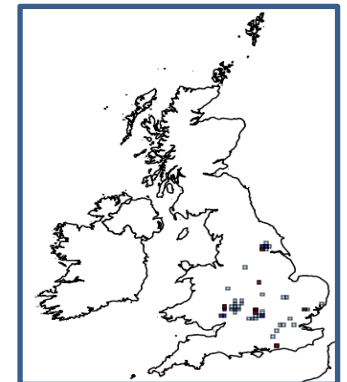
# Butterbur *Petasites hybridus*





# Bolton's Pit

- Water lilies, Reed
- Reedmace, Bur-Reed
- Purple Loosestrife, **Water Figwort**
- Water-mint, Ragged Robin
- **Narrow-leaved Water-dropwort**



# Invertebrates

185 species recorded in Paradise :  
the tip of the iceberg

- Dragonflies and Damselflies
- Mayflies
- Butterflies and Moths
- Ladybirds
- Bugs and Beetles
- Bees
- Worms
- Spiders
- Ants
- Flies
- Snails and slugs



# Male and Female Banded Demoiselle



# Rarities

- Leafhopper *Ribautodelphax imitans*
- 3-4mm long
- Chalk grassland,  
on tall fescue grass  
clumps in Coe Fen



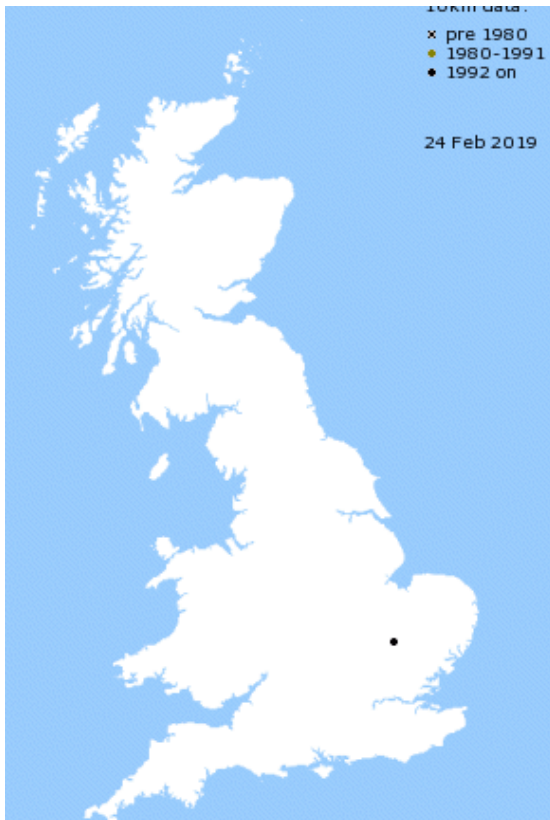
Fewer than 20 other sites in UK

# Long-Horned Musk Beetle



# *Frontinellina frutetorum*

the only UK record of this 3mm spider

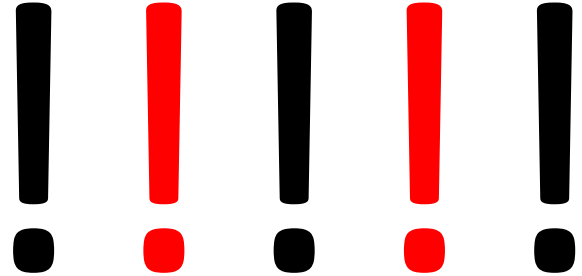


# Many fewer invertebrates



# Typical Package Labels

- **“STOP”**



- **“BUG CLEAR”**

- **“FIGHTER”**

- **“INSECT KILLER”**

- **“GUN”**

# Fish



- River Cam, the Rush, Bolton's Pit
- Eel, Perch, Roach, Dace, Chub, Gudgeon, Minnow, Stickleback, Rudd, Tench, **Trout**
- **Pike** up to 17lb – longer than a man's arm
- Concern over chemical and bacterial pollution
- Concern over fish stocks (otters, cormorants, Eastern Europeans)

# Sea Trout in the Rush 2018



# Reptiles and Amphibia

- Smooth Newts
- Frogs
- Toads
- Grass Snakes



# Grass Snake



# Mammals - Bats

8 species in Paradise

- **Daubenton's**
- Noctule
- Brown Long-eared
- Serotine
- Common Pipistrelle
- Soprano Pipistrelle
- Nathusius' Pipistrelle
- **Barbastelle**



# Hedgehogs – alas, no



# Badger



# Other Mammals

- **Hare, Badger**
- **Otter, Water Vole**
- Muntjac,
- **Stoat, Weasel**
- Grey Squirrel, Rat
- Mice, Shrew
- Bank Vole
- Fox
  
- **Domestic Cats and Dogs**
- **Grazing cattle**



# Water Vole in Snob's Brook



Anita Joysey March 2026

# Otter



# Muntjac deer



# Fox



Bushnell

Ⓜ

48F9C

●

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# Birds special to Newnham

- **Rooks and Jackdaws**
- Herons and Egrets
- Starlings
- **Tawny Owls**
- **Barn Owls**
- **Swifts**
- House Sparrows



# Swifts





# Starlings



# Water birds

- Kingfisher, Moorhen, Cormorant
- Mallard, **Feral White Geese (no longer)**
- Canada and Greylag Geese,
- Mute Swan, Snipe
- **Little Egret**, Heron
- Black-Headed Gull
- Little Grebe



# Kingfisher



# Little Grebe



# Woodland and Garden Birds

- Sparrowhawk, Kestrel, Jay, Magpie
- Mistle Thrush, Song Thrush
- Treecreeper, **Cetti's Warbler**
- Wren, Sedge Warbler
- **Siskin**, Chaffinch
- Greenfinch, Goldfinch
- Blackbird, Robin
- Green Woodpecker
- Great Spotted Woodpecker
- Fieldfare, Redwing
- Blackcap, Chiffchaff
- Goldcrest, **Firecrest**



# Wren



# Jay



# Fieldfare



# Farmland Birds

- Grey Partridge
- **Yellowhammer**
- **Skylark**
- Corn Bunting
- Reed Bunting
- Lapwing
- Whitethroat
- Lesser Whitethroat





Grantchester Meadows

N52°11'21.12"

E 0°05'49.92"

E 0°06'15.84"

# Birds recorded in my weekly garden survey over 4 years

Number of Species has reduced (average in Feb/March 16 to 13) but  
Total Count unchanged

## Losses

- Chaffinch
- Greenfinch
- Blackbird
- Collared Dove
- Jackdaws and Rooks

## Gains

- Little Egret
- Red Kite
- Coal tit



# Over-flying / occasional Birds

- Buzzard, Red Kite
- Peregrine Falcon
- Cuckoo
- Cambridge migration fly-way
  
- **White Stork**
- **Pallas' Warbler**



# What must we preserve?

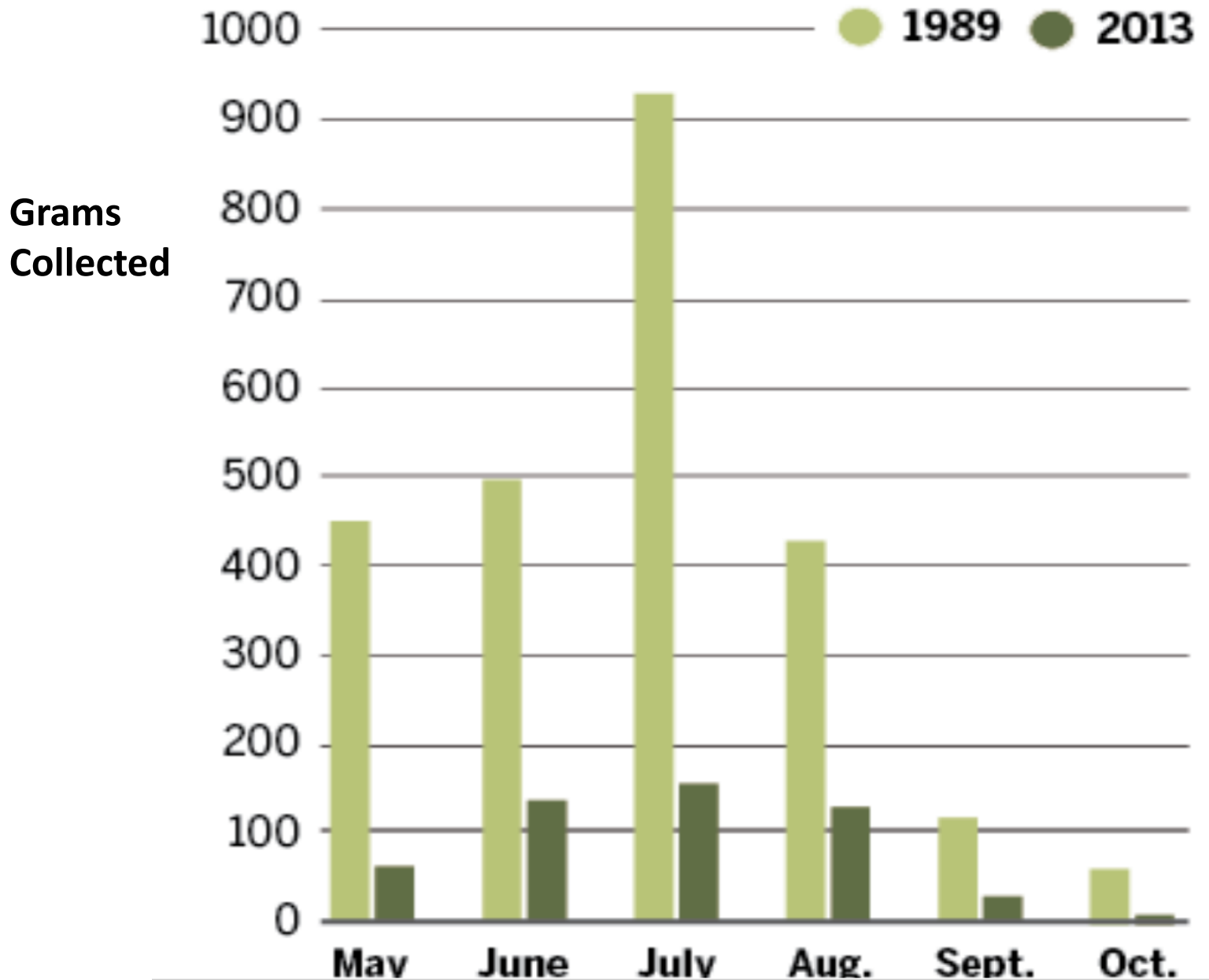
- Woodland
- Ancient hedges
- Nature reserves
  - Paradise
  - Sheep's Green
  - Skaters Meadows
- Grantchester Meadows
- Garden biodiversity



# What do we need less of?

- **Pesticides and Herbicides**
- 75% of the aerial biomass (i.e. flying insects) has disappeared in the last 27 years
- Silent Spring by Rachel Carson

# Aerial Biomass



# Recent habitat encroachment or loss





# Importance of Corridors

1. **River Cam** – fish, otters and water voles, grass snakes, dragonflies and damselflies, mayflies, bats
2. **Water Meadows** – rare plants, cattle and cowpats, gulls, snipe, rooks, crows and jackdaws
- 3 **Woodlands** – badgers, muntjac. birds
- 4 **Private gardens** – insects, esp. butterflies and bees, amphibia



# CPPF plans for Grantchester Meadows



- Survey of visitor opinion
- Re-wetting in places – marsh and reeds
- Bulking up hedges and copses for woodland corridor
- Re-opening cross ditches for fish fry nurseries
- Wild flower corridor
- Controlled cattle grazing
- Visitor education, litter control





Grantchester Meadows

N52°11'21.12"

E 0°05'49.92"

E 0°06'15.84"



# How can we enhance Newnham's Wildlife?

- More pollinating plants – corridors of wild flowers – fewer chemicals – avoid dog flea treatment
- Interconnected gardens, gaps in fences, street **gutters**
- More street trees and **woodland**
- Community orchard
- More garden ponds and a big village **pond**
- More chemical-free allotments and playing fields
- More bird boxes, especially for swifts and sparrows



# SWOT analysis



## **Strengths:**

- Concerned population
- Neighbourhood Plan (Newnham Neighbourhood Forum)
- Green Party councillors
- Iconic status of Grantchester Meadows

## **Weaknesses:**

- Transient population
- Concern without action

# SWOT analysis

## Opportunities

- Grantchester Meadows
- New Woodland
- Morgan Sindall cash  
Community Projects



# SWOT Analysis

## Threats

- Central Government
- Council planners
- University and Colleges
- Constant pressure for more houses
- Pesticides and Herbicides
- Light pollution
- People, dogs, cats, litter



# ***What can you do?***



- Activism works – fight ‘development’
- Spread the messages
- Untidy verges and gutters OK
- Garden pond
- More trees and wild flowers
- No garden chemicals
- Less light pollution





# Thanks to....

- Paul Rule
  - Pam Gatrell
  - David Williams
  - Anita Joysey
  - Jill Newcombe
  - Others
- .....for superb Photos



# Questions?





# NatHistCam Project



## CNHS Cambridge Survey

[HOME](#)

[MAP OF THE AREA](#) ▼

[A NATURAL HISTORY OF CAMBRIDGE](#)