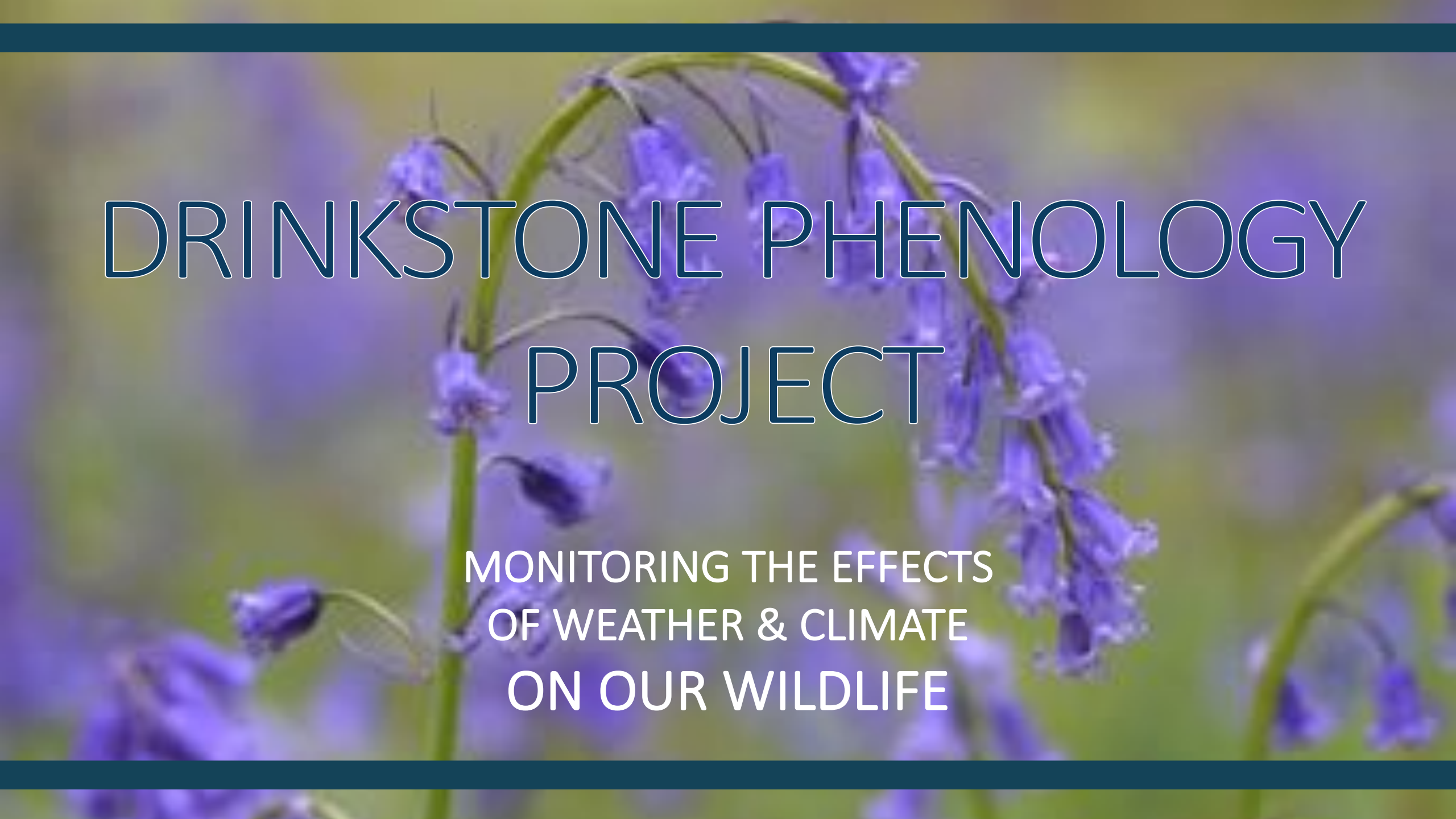


DRINKSTONE PHENOLOGY PROJECT

MONITORING THE EFFECTS
OF WEATHER & CLIMATE
ON OUR WILDLIFE

WHAT IS PHENOLOGY?

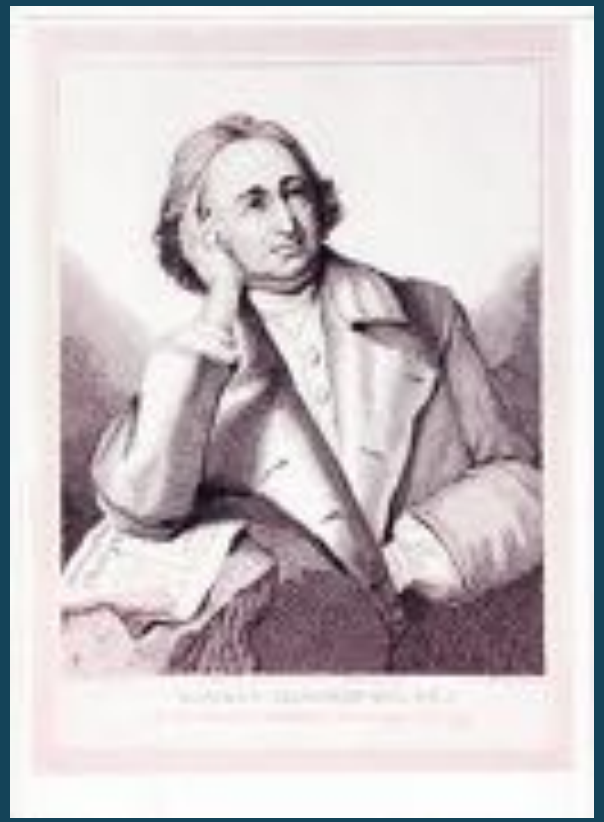
"The study of cyclic and seasonal natural phenomena"

WHY IS PHENOLOGY SO IMPORTANT?

One of the oldest areas of environmental science:

- China: thought to have kept the first written records dating back c. 974 BC
- Japan: timing of peak cherry blossoms have been recorded for over 1,200 years
- Harvest of the Pinot Noir grape in Burgundy has been recorded since 1370
- Aldo Leopold: A Sand County Almanac (1949) included observations from his work around US

ROBERT MARSHAM'S RECORD: STRATTON STRAWLESS



WHY ESTABLISH A RECORD IN DRINKSTONE?

- Crucial tool for understanding the impact of climate change on vegetation
- This would be a comprehensive yearly record from a specific site
- Existing monitoring across the UK is sporadic
- Standardised methodology

Nature's Calendar

WOODLAND TRUST

WHY GET INVOLVED?

CONTRIBUTE TO SCIENTIFIC DISCOVERY:

This type of data is useful for all sorts of research and decision making:

- **Scientists :** climate change & conservation issues
- **Resource Managers :** predict & address the threat & impact of drought, flooding & land-use change
- **Educators :** expands knowledge & understanding of nature and connects our younger generation to the importance of the world around them

WHAT WILL WE BE MONITORING?

FIRST LEAF OPENING: FIVE TREE SPECIES

FIRST FLOWERING: THREE WOODLAND WILDFLOWERS

FIRST BIRD SIGHTING/SONG: FIVE MIGRATORY BIRDS

WHAT WILL WE BE MONITORING?

FIRST LEAF OPENING:

1. Entire length of the leaf has emerged from the breaking bud

2. Leaf surface is clearly visible (leaf is no longer folded)

WHAT WILL WE BE MONITORING?

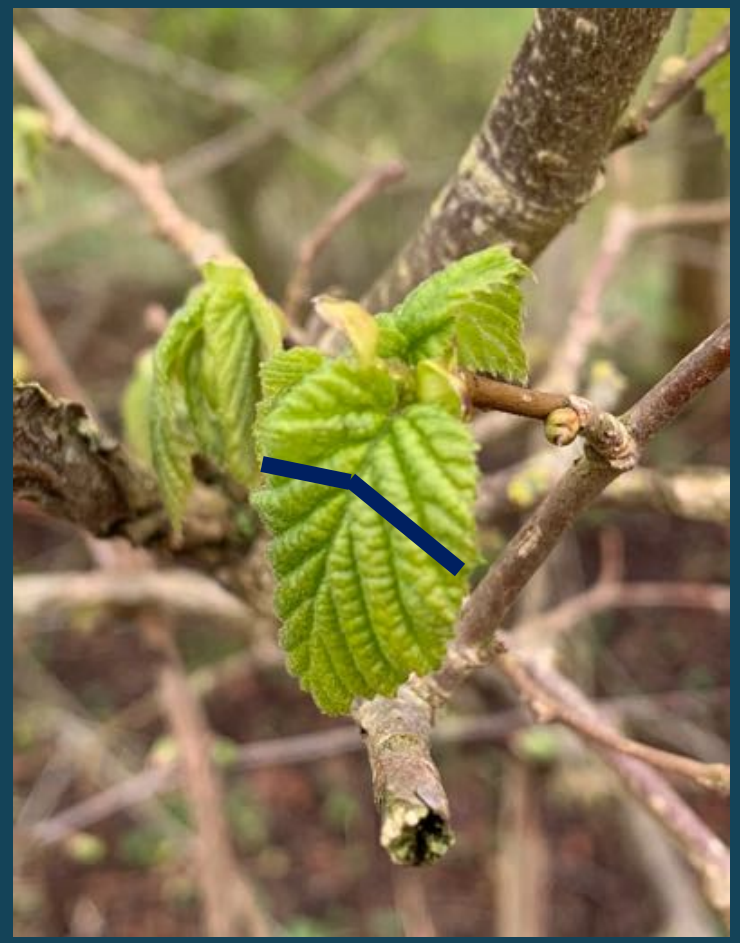
FIRST LEAF OPENING:

1. Entire length of the leaf has emerged from the breaking bud

2. Leaf surface is horizontal (leaf is no longer folded in half)

Too early – still folded

Just right



Too late – started folding down at the edges

WHAT WILL WE BE MONITORING?

TREE SPECIES:

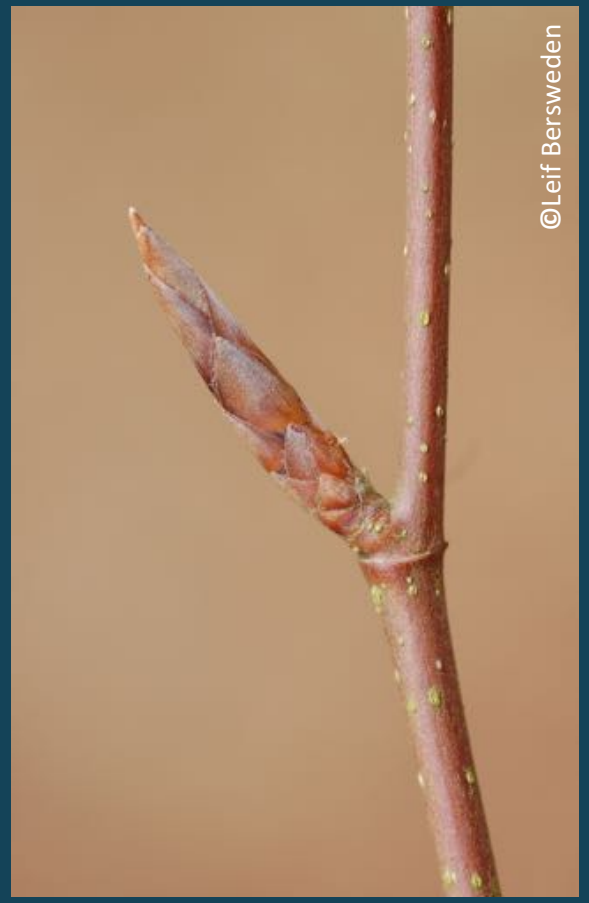
1. Beech (*Fagus sylvatica*)
2. Silver Birch (*Betula pendula*)
3. Common Ash (*Fraxinus excelsior*)
4. English Oak (*Quercus robur*)
5. Sessile Oak (*Quercus petraea*)

FIRST LEAF OPENING:

BEECH

(*FAGUS SYLVATICA*)

EXPECTED:
EARLY APRIL TO MID MAY



How to identify the bud

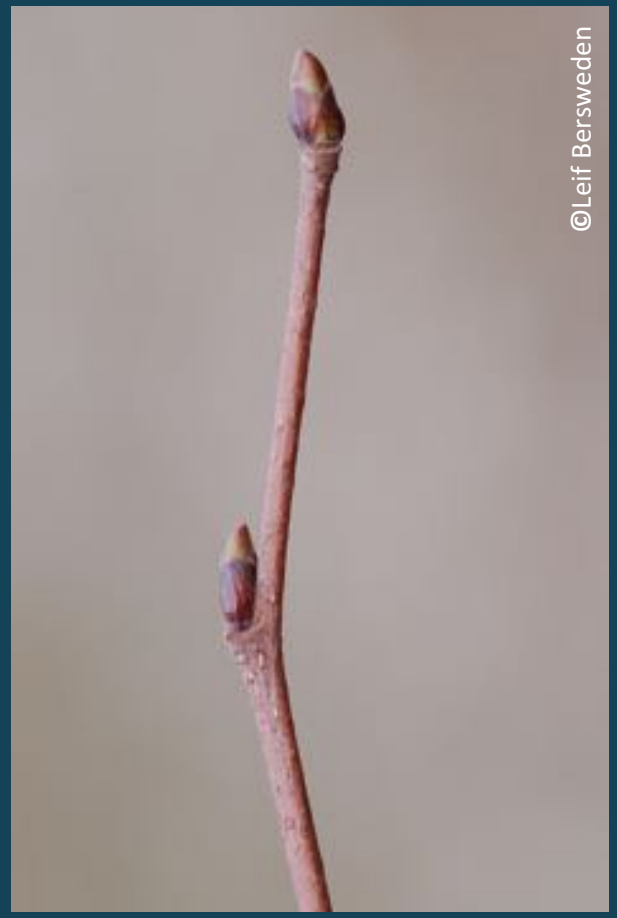
How to identify the bark

FIRST LEAF OPENING:

SILVER BIRCH

(*BETULA PENDULA*)

EXPECTED:
LATE MARCH TO EARLY MAY



How to identify the bud

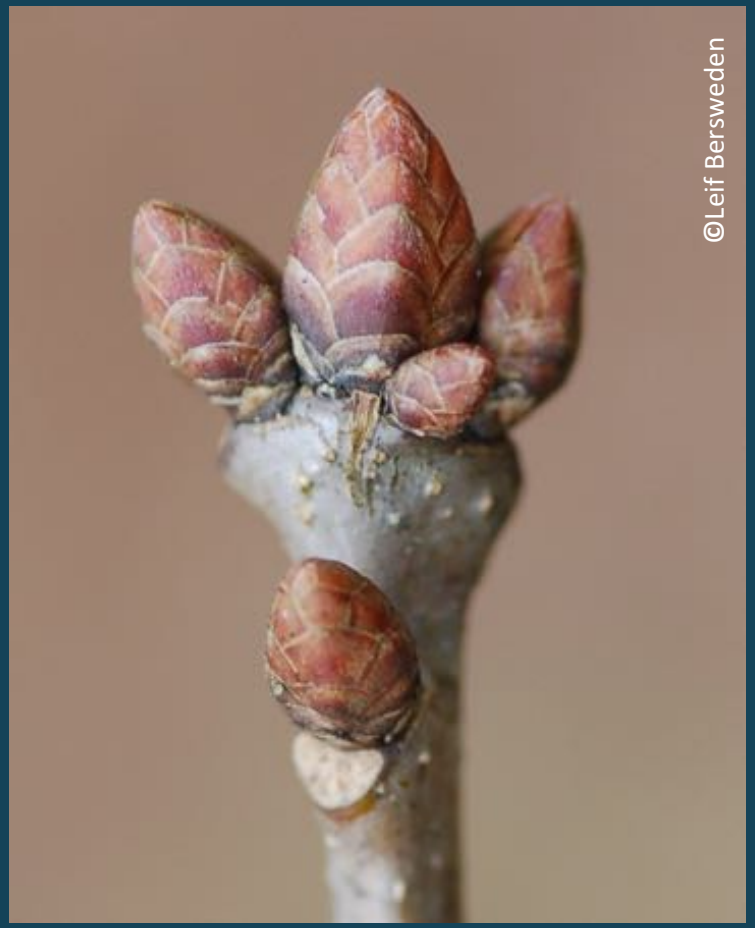
How to identify the bark

FIRST LEAF OPENING:

ENGLISH OAK

(*QUERCUS ROBUR*)

EXPECTED:
EARLY APRIL TO MID MAY



How to identify the bud

How to identify the bark

FIRST LEAF UNFOLDING:

ASH

(*FRAXINUS EXCELSIOR*)

EXPECTED:
MID-APRIL TO LATE MAY

How to identify the bud

How to identify the bark

WHAT WILL WE BE MONITORING?

FIRST FLOWERING:

1. Petals are no longer touching at the top

2. Petals have opened sufficiently for you to see stamens/stigma inside flower

WHAT WILL WE BE MONITORING?

FIRST FLOWERING:

1. Petals are no longer touching at the top

2. Petals have opened sufficiently for you to see stamens/stigma inside flower

FIRST FLOWERING:

WOOD ANEMONE

(*Anemone nemorosa*)

EXPECTED:
LATE FEBRUARY TO LATE APRIL

FIRST FLOWERING:

BRITISH BLUEBELL

(*Hyacinthoides non-scripta*)

EXPECTED:
MID-MARCH TO EARLY MAY

FIRST FLOWERING:

LESSER CELANDINE

(*Ranunculus ficaria*)

EXPECTED:
MID-JANUARY TO MID-MARCH

FIRST BIRD SIGHTING/ SONG

Swallow: Long forked tail, dark body, white underside with red throat and forehead

Swift: All brown body, short forked tail with scythe shaped wings

Cuckoo: Distinctive song. Blue-grey body, long tail and white-brown bands extending along tail

Nightingale: Distinctive song, light brown body, pale underside, slightly bigger than a robin

House martin: Short forked black tail, blue/black body with white underside and throat

HOW CAN YOU GET INVOLVED?

- Any help with this project would be appreciated- however much or little as your time allows!
- Please choose plants that are NOT affected by humans (watering or nutrient feeds)
- Whatever you choose to observe, please note down:
    - date of the observation
    - the location
    - if possible, any photos you've taken

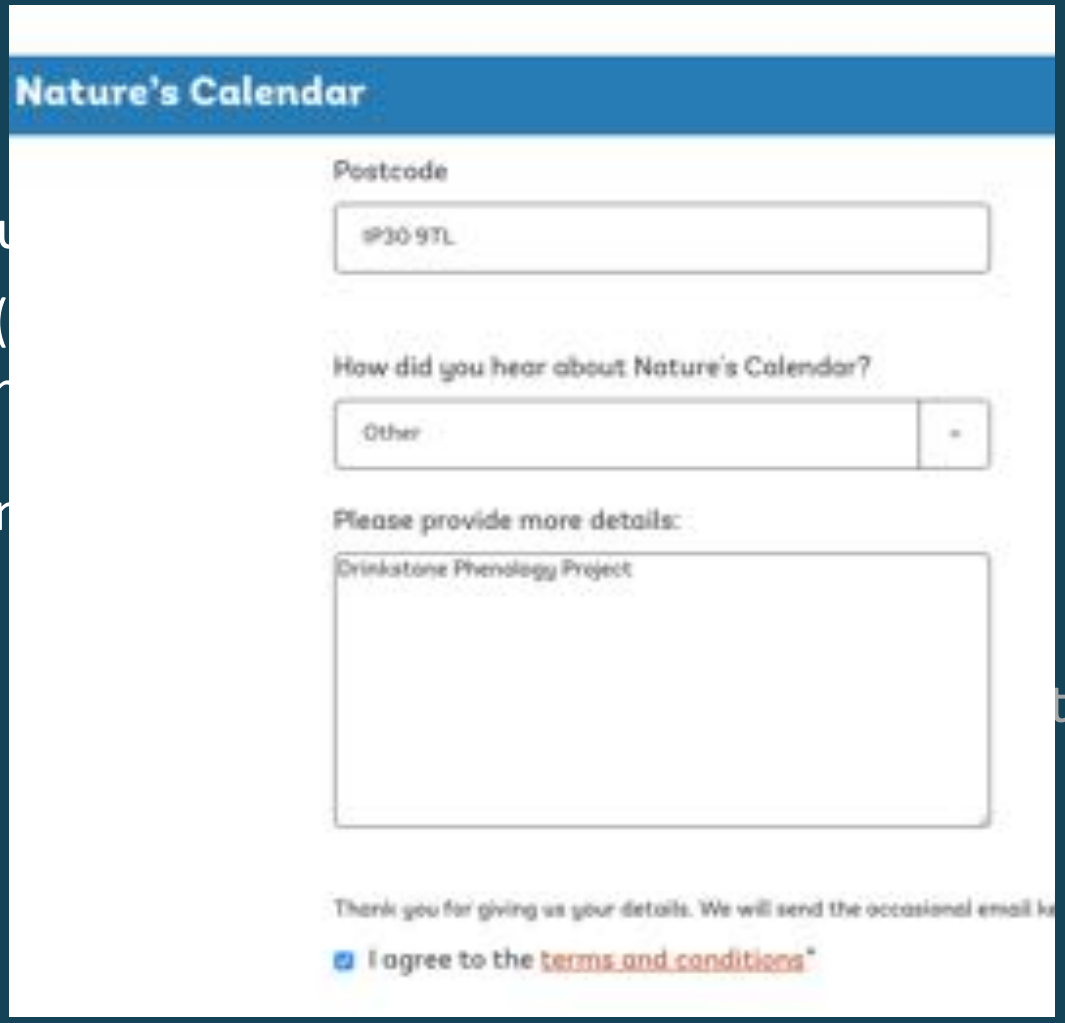
HOW TO SUBMIT YOUR RECORD

1. Directly on the Nature's Calendar website
    - Firstly register (please select **'other'** then write **'Drinkstone Phenology Project'** in box underneath)
    - Then login at any time and record any new sightings

2. Using a paper form that you can collect from us tonight, request via email, or collect from Blackbirds

HOW TO SUBMIT YOUR RECORD

1. Directly on the Natu
   - Firstly register (**Phenology Project'** in box underneath
   - Then login at ar
2. Using a paper form t via email, or collect from Blackbirds



HOW RECORD

1. Directly on the Natu
   - Firstly register (p **e Phenology Project'** in box underneath)
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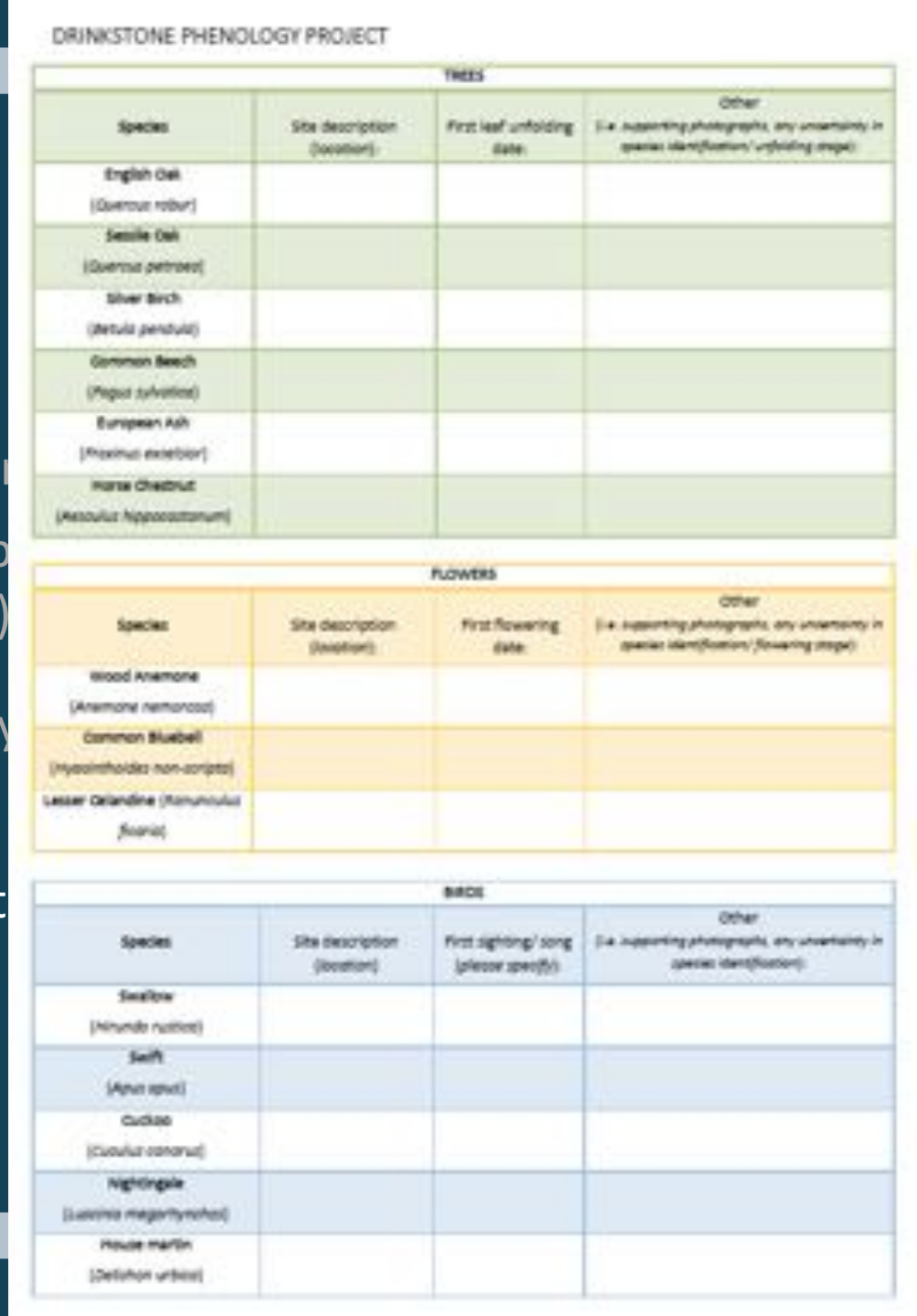

DRINKSTONE PHENOLOGY PROJECT

TREES

Species	Site description (location)	First leaf unfolding date	Other (i.e. supporting photographs, any uncertainty in species ident/location/ unfolding stage)
English Oak (Quercus robur)			
Sessile Oak (Quercus petraea)			
Silver Birch (Betula pendula)			
Common Beech (Fagus sylvatica)			
European Ash (Fraxinus excelsior)			
Horse Chestnut (Aesculus hippocastanum)			

FLOWERS

Species	Site description (location)	First flowering date	Other (i.e. supporting photographs, any uncertainty in species ident/location/ flowering stage)
Wood Anemone (Anemone nemorosa)			
Common Bluebell (Hyacinthoides non-scripta)			
Lesser Celandine (Ranunculus ficaria)			

BIRDS

Species	Site description (location)	First sighting/ song (please specify)	Other (i.e. supporting photographs, any uncertainty in species ident/location)
Swallow (Hirundo rustica)			
Swift (Apus apus)			
Cuckoo (Cuculus canorus)			
Nightingale (Luscinia megarhynchos)			
House martin (Delichon urbica)			


THANK YOU FOR YOUR TIME!
ANY QUESTIONS?

IDENTIFYING TREES IN WINTER