

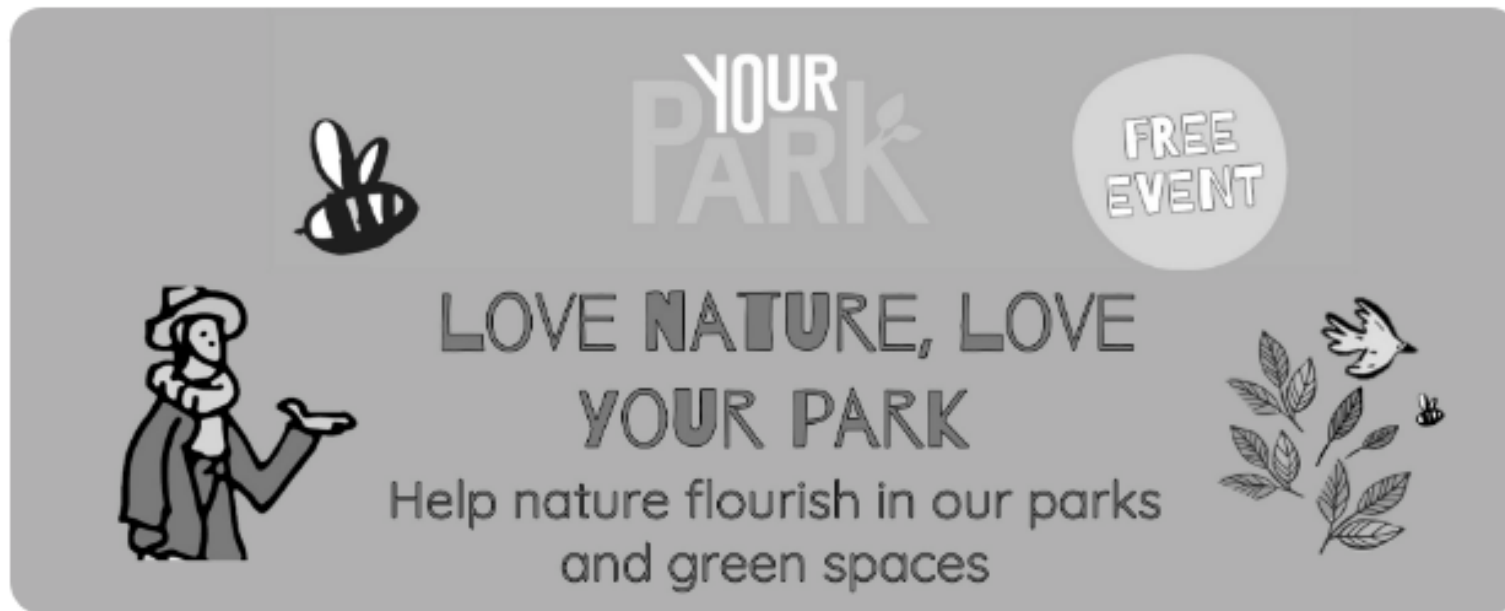
PARK WILDLIFE IN SPRING

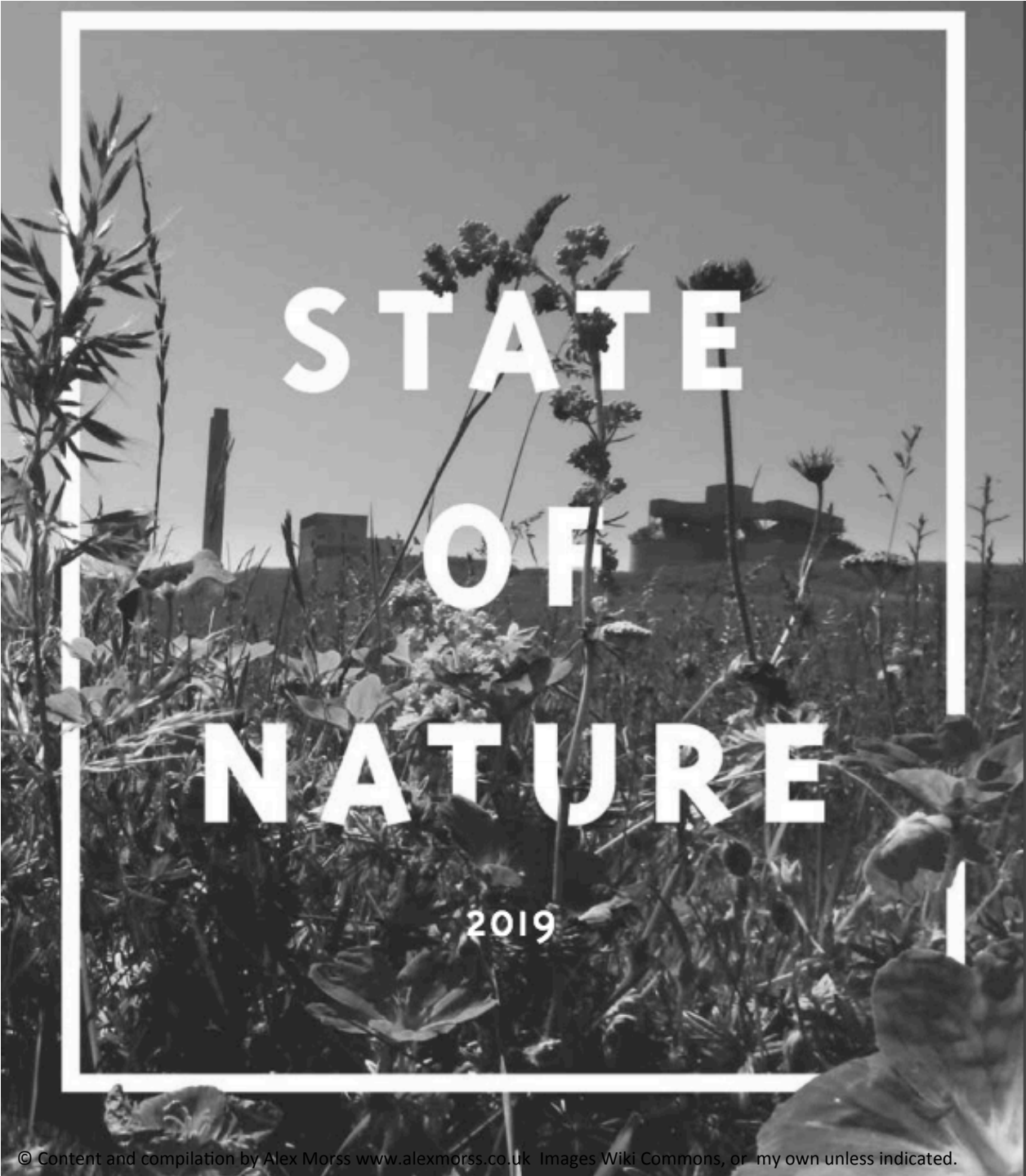
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STATE OF NATURE

2019



15%
of species are
threatened with
extinction from
Great Britain



133
of 8431 assessed
have already
become extinct
from Great Britain

The State of Britain's Larger Moths 2021

Abundance of
larger moths
has fallen
1/3 in 50 years

Drivers: habitat loss,
climate change, chemical
and light pollution

State of Britain's Butterflies 2022



Peacock

**80% of
butterflies
have
declined
in 50 years.**

**½ of our
butterfly
species
are at risk
of extinction**

UK's flying insects down
60% in 20 years

Pollinators

Food for birds,
mammals, reptiles,
amphibians





Where did all the **wildlife go?**

Green by name but depleted in nature,
urban green spaces are now battle
grounds in the fight for biodiversity.

By Alex Morss Illustrations Dawn Cooper

It is time to wake up and smell the grass – to recognise that Britain is slumped, somewhat obliviously, in a blurry lime-green hangover that's been going on for so long that we no longer seem to recognise what's not natural and normal.

Protests this year have prompted concern, by scientists and campaigners, about how Britain cares for its half a million hectares of urban green land, and what we perceive as 'nature'.

With Britain having lost about 97 per cent – three million hectares – of its wildflower-rich grasslands since the 1940s, our closely strimmed parks, greens, school fields, university lawns, squares, landscaped grounds and sports fields could offer alternative refuge to declining wildlife.

We have more than 84,000 hectares of publicly accessible urban green space, and 62,000 parks and green spaces. However, the Wildlife Trusts has estimated that two-thirds of amenity grasslands are close-mown. Significant amounts of them are wildlife depleted, chemically treated or environmentally worse than they could be.

- Nature is in crisis
- >80 % of us are urban.
- Let's bring nature closer to us
- We have 84,000 hectares / 62,000 parks & green spaces
- 2/3 of amenity grassland is close mown
- Chemicals !
- 97% of flower rich grasslands lost since 1930s

From BBC Wildlife magazine
August 2020

So how can we help them?

FOOD

WATER

A SAFE HOME

BREEDING SITES

ACCESS / MOVEMENT

What's for dinner?



Cinderella habitats and species



The dandelion supports over 100 different species!!!





Superstar
'cinderella habitat'
flowers to raise insect
richness and increase
ecological diversity:



Thistles
Sow thistles
Teasel
Nettle
Bramble
Dandelion
Grasses
Docks
Sorrel
Ragwort
+ Early spring wild
flowers



Insects depend on very specific food plants.
They also have different tongue lengths.

A variety of flower shapes, colours + species matters to
increase insect diversity!

It is best to nurture the existing seed bank of wild
flowers, by reducing the mowing regime and lowering
nutrient levels, but if you have a barren site and you
are sowing to introduce food plants for insects, choose
locally native wildflowers, grown locally.

Source them from a UK native wild flower specialist,
not a garden centre or horticulture nursery

Long grass on this site = a food larder for at least 8 recorded bat species, 4 species of grasshopper, hedgehogs, amphibians, voles and tawny owls



TREES + HEDGES

How much life in 1 tree?

Table 1. Variety of insects supported by British trees.

Tree species	No of insects supported
Oak	284
Willow	266
Birch	229
Hawthorn	149
Poplar	97
Apple	93
Pine	91
Alder	90
Elm	82
Hazel	73
Ash	41
Lime	31
Hornbeam	28
Holly	7

Native trees help achieve year-round nectar, pollen, fruit, shelter. Good examples:

Autumn/ winter:
Broom, heathers,
hazel, ivy

Late winter : willow for
short-tongued early &
tree bumblebee & tits

Early spring fruit tree
blossom: apple, plum,
blackthorn, willows

Elm, holly, apple/crab apple, buckthorn, alder buckthorn = good for butterflies/moths

Ivy : Excellent nectar /pollen, eg hoverflies, ivy bee. Winter fruits for birds. Shelter for birds, mammals, insects, spiders, molluscs - all important prey food. Willow: male catkins

Birch, willow, hazel: excellent for wildlife – a large number of birds & 500+ species of insect.

Heather supports: 180 + species, eg beetles, bugs, moths, butterflies
Nectar August–Oct / Erica species = valuable early spring nectar & pollen.

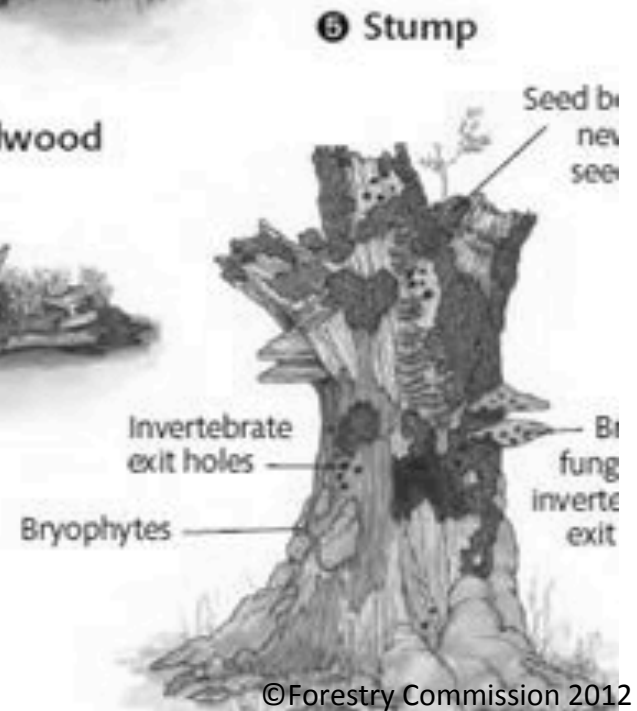
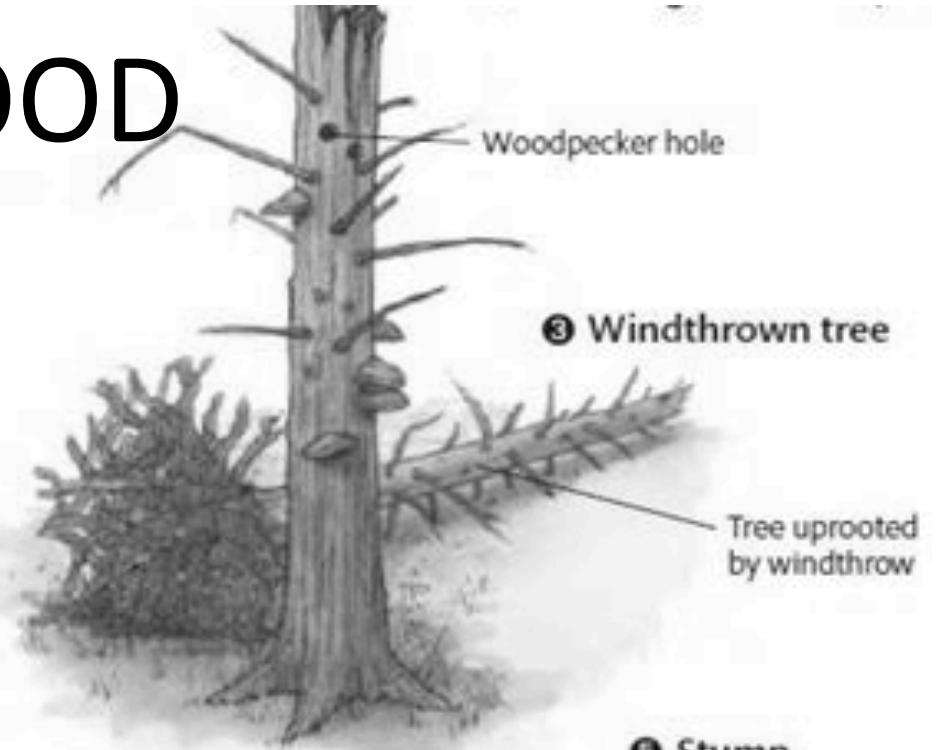
Blackthorn [sloe] = a meal to 250+ invertebrate species.



Willow Tunnel in Victoria Park

DEAD GOOD

Veteran tree
 Standing dead tree (snag)
 Windthrown tree
 Fallen deadwood
 Tree stump



Future threats:
climate change, aliens & disease.

Danger of transporting aliens + disease
with nursery plants.

More diverse trees = increases
resilience / alternative food

NOCTURNAL & HIDDEN LIFE

Parks have hidden surprises

- lots will move in if we help
- eg slow worms, bats, hedgehogs, tawny owls

Tawny owl

- Prefers to nest in old tree holes.
- Eats voles, rabbits, bats, birds, frogs, worms, insects,
- Will use old crow/pigeon nests, squirrel dreys, owl boxes.
- Prefers deciduous woodland to nest and hunt, breeds successfully among older trees with clearings, uses parks and gardens.



See RSPB / BTO website
for advice on bird nest
box sizes and position

Thick hedgerows
Lots of dense cover!!!



Bat friendly parks

Many of our 18 bats are rare and at risk. They need:

No light pollution.

No pesticides (insecticides, wood treatments).

Habitat to hunt insects: over water, gardens, fields, near trees.

Hedgerows, trees, lofts, sheds & crevices for navigation, shelter.

A safe roost: trees, buildings, caves.

How can I make my garden & pond bat friendly?

1. Add a pond = Massive increase in flying insects!
2. Ditch pesticides & lighting – or choose timers, dimmers, hoods, less harmful light designs (not yellow).
3. Think about the tall habitat around the pond too.
4. Add shelter – boxes and vegetation.
5. Add hedges, climbers & trees for hunting and roosting.
6. Rot zones : dead trees, compost, leaf piles = insect food.
7. Add evening scented plants to attract moths eg honeysuckle, evening primrose, stocks.



Bat boxes
More advice at:
www.bats.org.uk

Toad patrol – Facebook groups. Now!



POND PLANTS

More plant variety + seasonality + structure =
more wildlife diversity + more abundance + more wildlife
resilience

Oxygenators –
submerged plants

Curled pondweed
Mare's tail
Water milfoil
Water starwort
Yellow water lilies
Wintergreen
Stonewort
mosses

Marginals –
Perches, egg laying and
shelter for wildlife.

Bur reed
Flowering rush
Great spearwort
Water plantain
Water speedwell
Yellow flag

Bog plants –

Bog bean
St John's wort
Creeping jenny
Fleabane
Greater birds foot trefoil
Hemp agrimony
Marsh marigold
Angelica
Purple loosestrife
Watercress
Water forget me not
Rushes
sedges

List of good wildlife pond plants...

Deeper water (submerged and oxygenating plants):

Usually submerged plants. Some native species can be fussy, re water quality is poor:

Curled pondweed (*Potamogeton crispus*)

Rigid hornwort (*Ceratophyllum demersum*)

Water crowfoot (*Ranunculus aquatilis*)

Water-violet *Hottonia palustris*

Willow moss *Fontinalis antipyretica*

Common water starwort (*Callitriche stagnalis*)

Spiked water milfoil (*Myriophyllum spicatum*) - Do not accidentally use *M. aquaricum*, known as Parrot's feather, which is non-native and extremely invasive.

Floating plants

Plants whose leaves float on the surface, providing shade to the water below and reducing the growth of algae.

Some plants may be rooted but others float freely.

The leaves also act as platforms for viewing, courting or mating for a variety of insects.

Amphibious bistort (*Polygonum amphibium*)

Frogbit (*Hydrocharis morsus-ranae*)

Broad-leaved pondweed (*Potamogeton natans*) - Can take over in very small ponds.

Fringed waterlily *Nymphaea peltata*

Yellow waterlily *Nuphar lutea*

Marsh or bog plants

Near the water's edge.

Purple loosestrife (*Lythrum salicaria*)

Ragged robin (*Lychnis flos-cuculi*)

Pendulous sedge (*Carex pendula*)

Marsh woundwort (*Stachys palustris*)

Cuckooflower (*Cardamine pratensis*)

Emergent plants

Plants with erect stems and leaves which emerge above the water's surface. These are important for dragonfly nymphs to crawl up before they become adult flying insects. Some of these can quickly take over a garden pond, so may need to be cut back.

Branched bur-reed (*Sparganium erectum*)

Bogbean (*Menyanthes trifoliata*)

Greater spearwort (*Ranunculus lingua*)

Greater pond sedge (*Carex riparia*)

Small sweet grass (*Glyceria fluitans*)

Marginal plants

Plants that need to grow at the shallow edges of the pond, extending out into the water. Some need to be permanently in a few cm of water, others can tolerate drying out.

Water forget-me-not (*Myosotis scorpioides*)

Water mint (*Mentha aquatica*)

Water speedwell (*Veronica anagallis-aquatica*)

Marsh marigold (*Caltha palustris*)

Lesser spearwort (*Ranunculus flammula*)

Brooklime *Veronica beccabunga*

Creeping Jenny *Lysimachia nummularia*

Lesser pond sedge *Carex aucuparia*

Rushes *Juncus* spp.

Water plantain *Alisma plantago-aquatica*

Amphibious bistort *Persicaria amphibia*

Cinderella habitat wishes...

5 new gifts:

Support the natural seed bank = natural rewilding.

Make or enhance a pond.

Bird & bat & insect houses.

Native mixed hedging / trees.

Basking & shelter for reptiles.

5 hot spots:

High value rebels, eg dandelions, nettle & bramble.

No Mow ! Long grass, April-July.

Dead zones: Leaf litter & logs = shelter, food.

Bare soil for burrowing bees.

Improve flower beds with mixed-shape, nectar-rich, British wild flowers for all seasons.

5 pitfalls:

Trampling - it compacts soil. Less trodden zones.

Chemicals - 'insect killing' + removes insect food.

Fake surfaces - plastic grass, decking, hard surfaces.

Cheap turf = low diversity.

Light pollution - bats, birds, moths.

5 re-thinks

Timing: year-round blossom better than a brief floral flush.

Annuals: temporary fast fix & crowd pleasers; but will perennials follow?

Tell: land owners what you like/don't like / get permission.

Share: celebrate, inspire others with your success! Learn from any feedback.

Mindsets: feral = good!



IDEAS FOR MONITORING PARK WILDLIFE

- * Join walks with local groups such as **Bristol Naturalists' Society** or **Bristol Nature Network**. or Bath Naturalists.
- * Join the **BSBI**. Members help each other identify plants and BSBI offers training grants.

- * Use **iSpot**: a free app and website where experts will identify your photos.
- * Join a **Facebook** group such as Wildflowers of Britain.
- * Get trained via the **Field Studies Council**.
Find other botanists to help

IDEAS FOR MONITORING PARK WILDLIFE

- National wildlife recording schemes, eg:
- BSBI – New Year Plant Hunt.
- BWARs – Bee Wasp and Ant Recording Society.
- RSPB – Garden Bird Survey.
- Bat Conservation Trust Sunrise/Sunset Survey Survey.
- PTES National Dormouse Monitoring
- Hoverfly Recording Scheme
- Butterfly Conservation - Big Butterfly Count in July/August
- May dawn chorus
- Moth trap nights
- Hedgehog Society mapping
- Mammal Society, many more
- BIOBLITZ : Natural History Consortium <https://www.bnhc.org.uk/bioblitz/>
- My website has some bioblitz outreach ideas & info www.alexmorss.co.uk
- FIELD STUDIES COUNCIL: sells excellent ID sheets for many wildlife species

Biological Records Centre: maps, apps, data, societies



Home Recording Research Resources Links Staff Contact



Getting Started
with Biological
Recording

Key themes

Recording Schemes

Intro to recording

BRC Newsletter

Atlases

Datasets

Red Listing and Indicators

Climate Change Ecology

Invasion Biology

Changing Habitats

Air Pollution

Insect-Plant Interactions

Technology

Citizen Science

> 80 recording schemes and societies



+ phone apps



A good way to:

- share your wildlife records
- get free experts help with identification
- find out what's living in your area

Example 1: www.ispotnature.org/communities/uk-and-ireland/view/project/711283/my-wild-bedminster

Example 2: Flowers In Their Footsteps iSpot project at College Green, set up by Alex Morss for Your Park



BRERC Online Recording

The West of England's Environmental Records Centre

<http://recording.brerc.org.uk/>

