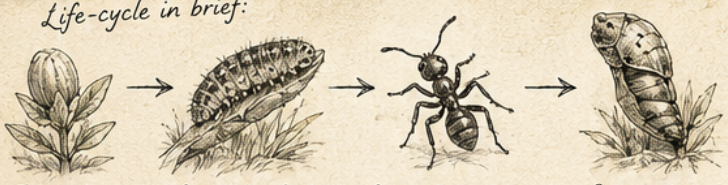
The Butterfly Brought Back

The Large Blue Butterfly: Brought Back to the Cotswolds



Large Blue
Phengaris arion
Wingspan: 33–40 mm
Family: Lycaenidae

Life-cycle in brief:



Egg laid on Wild Thyme (Thymus spp.) → *Caterpillar feeds on thyme flowers* → *Caterpillar taken into an ant nest (Myrmica sabuleti)* → *Overwinters, pupates and emerges as adult*



1. Date

Extinct in Britain by 1979; reintroduced from the 1980s onward

2. Location

Britain / Cotswolds



3. Short Narrative

The Large Blue butterfly vanished from Britain, but careful science and habitat restoration helped bring it back.

4. Key Facts

- Declared extinct in Britain in 1979
- Reintroduction began after scientists solved its life-cycle mystery
- Cotswold sites became major comeback locations

5. Why It Matters

It shows that extinction can sometimes be reversed when the whole ecosystem is understood.

6. Interesting Fact

Saving the butterfly meant saving an ant, a flower, and a grassland.

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Britain's Rarest Blue

The Large Blue Butterfly



Large Blue
Phengaris arion
Wingspan: 33–40 mm
Family: Lycaenidae

1. Date

20th–21st century

2. Location

Southern England, including the Cotswolds



3. Short Narrative

The Large Blue is one of Britain's most famous rare butterflies, known for its pale blue wings and dark spots.

4. Key Facts

- Scientific name: *Phengaris arion*
- Lives in warm, short limestone grassland
- Adults fly mainly in early summer

5. Why It Matters

Rare species can reveal whether a habitat is healthy or failing.

6. Interesting Fact

Its beauty hid one of the strangest life cycles in the insect world.

Field Notes



Underside: pale with black and orange spots



Caterpillar: lives inside an ant nest



Host ants: Myrmica sabuleti (common in Cotswold grasslands)



Food plants: Wild Thyme (Thymus spp.) & Marjoram (Origanum vulgare)



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Why It Vanished

The Decline of the Large Blue



Habitat Change
- Less grazing
- More shade
- Tall grasses
- Fewer thyme patches

What changed?



1. Date

1800s–1979

2. Location

Former British grasslands



3. Short Narrative

The butterfly declined as traditional grazing changed, grasslands grew too tall, and the right ant habitat disappeared.

4. Key Facts

- Loss of short turf hurt the butterfly
- Wild thyme and marjoram became less available
- The needed red ant declined in unsuitable grassland

5. Why It Matters

Extinction often happens because relationships in nature break down, not because one species simply disappears.

6. Interesting Fact

The land could still look green while no longer being right for the butterfly.

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The Ant Secret

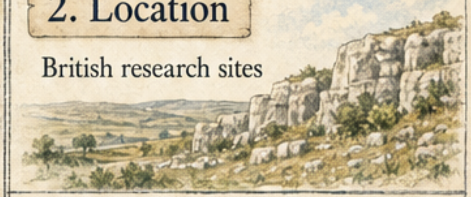
A Hidden Partnership

1. Date

Scientific breakthrough before reintroduction

2. Location

British research sites



3. Short Narrative

Researchers discovered that Large Blue caterpillars survive only inside nests of a specific red ant, *Myrmica sabuleti*.

4. Key Facts

- The caterpillar tricks ants into carrying it underground
- It lives inside the ant nest
- It depends on the correct ant species

5. Why It Matters

Conservation failed until scientists understood this hidden relationship.

6. Interesting Fact

The butterfly's survival depends on fooling ants.

Large Blue Caterpillar

Host ant: *Myrmica sabuleti*
Family: Formicidae
Size: 3–4 mm

Myrmica sabuleti



Life-cycle in brief:



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A Strange Underground Life

The Large Blue Life Cycle



1. Date

Every summer in the butterfly's life cycle

2. Location



Thyme-covered grasslands

3. Short Narrative

The caterpillar starts life on wild thyme or marjoram, then drops to the ground and waits for ants to find it.

4. Key Facts

- Eggs are laid on thyme or marjoram
- Caterpillars mimic ant signals
- They feed inside the ant nest before emerging as butterflies

5. Why It Matters

The Large Blue proves that even tiny life cycles can be incredibly complex.

6. Interesting Fact

Most of its life is spent hidden underground.

Life-cycle in brief:



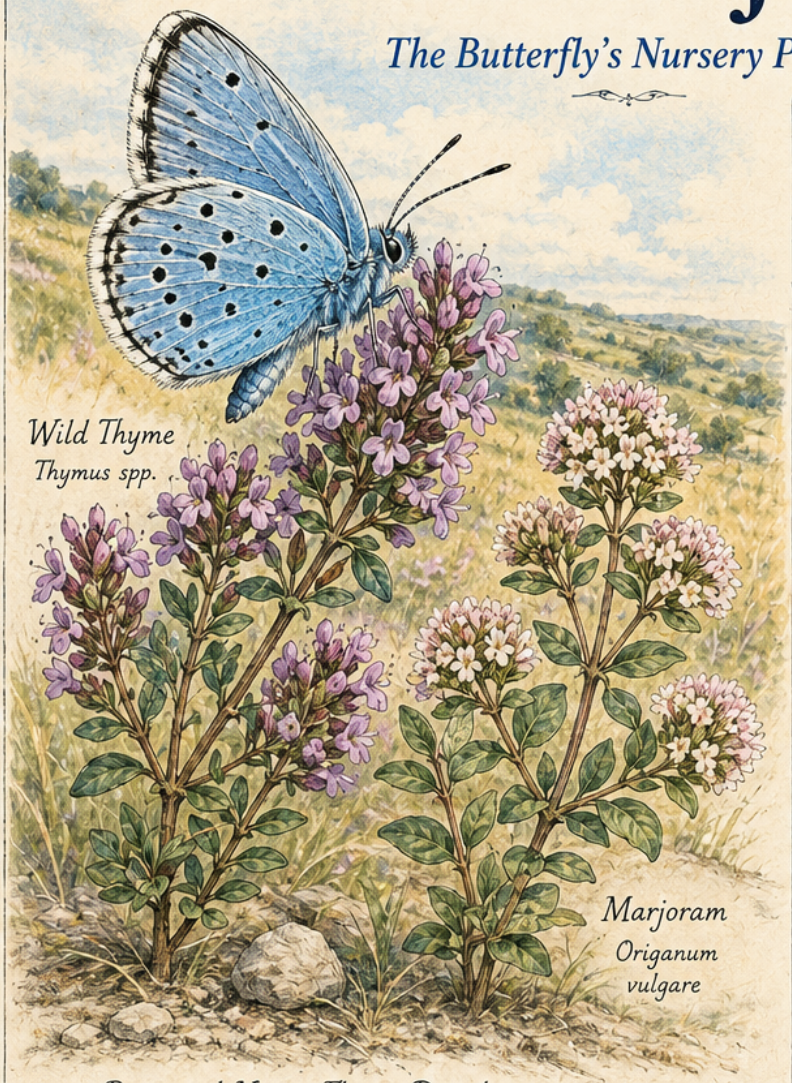
1. Egg laid on thyme or marjoram
2. Caterpillar feeds briefly
3. Ants find and carry it to the nest
4. Feeds and grows inside the ant nest
5. Pupates in the nest



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Wild Thyme and Marjoram

The Butterfly's Nursery Plants



1. Date

Ancient grassland habitat to present

2. Location

Cotswold limestone slopes

3. Short Narrative

These small flowers are more than pretty meadow plants — they are the nursery for young Large Blue caterpillars.

4. Key Facts

- Wild thyme is a key food plant
- Marjoram can also support egg-laying
- Both need open, sunny grassland

5. Why It Matters

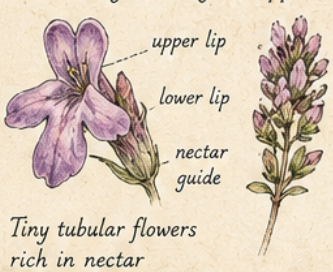
Protecting butterflies often begins with protecting plants.

6. Interesting Fact

A tiny thyme flower can decide whether a butterfly population survives.

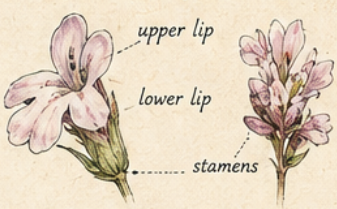
Botanical Notes: Flower Details

Wild Thyme (Thymus spp.)



Tiny tubular flowers rich in nectar

Marjoram (Origanum vulgare)



Clusters of fragrant flowers loved by pollinators



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