

Llanymynech Rocks



SIMON SPENCER

- I have been interested in Butterflies since 1954 – 60 years
- I trained as an Entomologist and worked in pest control in Africa
- I became disillusioned with intensive chemical agriculture and did a DPhil on DDT pollution in the early seventies.
- In 1975 I moved to Wales to become a self sufficient smallholder and kept sheep and cattle on 3 hectares and grew fruit and vegetables organically. Still doing it!
- I have been working part time as a consultant on butterflies since 1992 and have worked on Pearl-bordered Fritillary (*Boloria euphrosyne*) and other butterflies for the Montgomeryshire Wildlife Trust and other organisations.
- Recently I have worked as a volunteer with MWT and SWT on a very successful project funded by ALSF at Llanymynech Rocks.
- I am about to start a big landscape scale butterfly project with SWT in the Oswestry hills.
- I have engaged with the farming community in Wales and long campaigned for Agri-environment Schemes in Wales
- My smallholding was in Tir Gofal and is now partly managed for wildlife
- I chair Butterfly Conservation's European Interest Group and am actively engaged in promoting butterfly conservation in several countries in Europe.
- I travel extensively in Europe looking at butterflies and sometimes filming butterflies using a video camera. Europe has over 450 species of butterfly and I am slowly getting round them.

A field on my smallholding managed for butterflies



Meadow Brown

(*Maniola jurtina*)

- June-September (1)
Medium.
- Brown upper side with paler orange bands larger in female. Single white dot ringed with black on forewing.
- Common and widespread



Ringlet

(*Aphantopus hyperantus*)

- June – July (1)
- Dark brown with yellow and black ringed white dots on underside
- Can be common and widespread but does best in wet grassland



Gatekeeper

(*Pyronia tithonius*)

- July-August (1)
- Small. Upperside orange brown with darker marginal band. Male with prominent sex brand. Twin white dots surrounded by black on underside forewing.
- Common and widespread



Dark Green Fritillary

(*Argynnis aglaja*)

- June-August (1)
- Large. Orange butterfly with black spots above. Hindwing underside greenish with silver spots
- A grassland species that can be common on unimproved grassland



Rhoslan Butterflies

Genus Species	English	Status	Foodplant	Eire
Thymelicus sylvestris	Small Skipper	Common	Yorkshire-fog	No
Ochlodes sylvanus	Large Skipper	Frequent	Grasses	No
Anthocharis cardamines	Orange Tip	Common	Wild crucifers	Yes
Pieris brassicae	Large White	Far too common !!	Brassicas	Yes
Pieris rapae	Small White	Common	Brassicas	Yes
Pieris napi	Green-veined White	Common	Wild crucifers	Yes
Colias croceus	Clouded Yellow	Very occasional	Clovers	Yes
Gonepteryx rhamni	Brimstone	Occasional	Buckthorn	Yes
Lycaena phlaeas	Small Copper	Frequent	Docks	Yes
Neozephyrus quercus	Purple Hairstreak	Frequent	Oak	Yes
Callophrys rubi	Green Hairstreak	Recorded in past nearby	Various	Yes
Celastrina argiolus	Holly Blue	Frequent	Holly & Ivy	Yes
Polyommatus icarus	Common Blue	Frequent	Bird's-foot-trefoil	Yes
Argynnis aglaja	Dark Green Fritillary	Frequent	Violets	Yes
Boloria euphrosyne	Pearl-bordered Fritillary	Recorded in past nearby	Violets	Yes
Boloria selene	Small Pearl-bordered Fritillary	Very occasional	Violets/Marsh violet	No
Vanessa atalanta	Red Admiral	Common	Nettle	Yes
Vanessa cardui	Painted Lady	Common	Nettle	Yes
Inachis io	Peacock	Common	Nettle	Yes
Aglais urticae	Small Tortoiseshell	Common	Nettle	Yes
Polygonia c-album	Comma	Common	Nettle	Yes
Pararge aegeria	Speckled Wood	Frequent	Grasses	Yes
Lasiommata megera	Wall Brown	Frequent	Grasses	Yes
Coenonympha pamphilus	Small Heath	Recorded in past nearby	Grasses	Yes
Pyronia tithonus	Gatekeeper	Common	Grasses	Yes
Aphantopus hyperantus	Ringlet	Common	Grasses	Yes
Maniola jurtina	Meadow Brown	Abundant	Grasses	Yes
TOTALS		27		

Management of pasture for butterflies

- Late cattle grazing or hay so butterflies can complete their life cycle and flowers can set seed. Cattle in August and September.
- Low intensity grazing.
- Old species rich pasture: never drained, never ploughed, no fertilizer, no muck, should be no stock fed on the land, no herbicides, minimal nettle and thistle control, occasional winter sheep grazing.
- Lots of flowers – nectar sources for butterflies and butterfly foodplants
- Hedges flailed on rotation with a good mix of species
- Encourage Hay Rattle (*Rhinanthus* sp.) to weaken the grass and increase floristic diversity.



Devils'Bit Scabious and Peacock



Totally Uneconomic for Commercial farmers.

- Need compensation in the form of Agri-environment schemes to compensate for the loss of income.
- Most species rich pasture has gone anyway and only 2% remains in the UK
- Farming unions say that we would all starve
- Though reducing stocking levels and inputs and the adoption of an extensive grazing system can greatly reduce costs this is only really possible on large upland farms where profitability can be maintained despite lower output or on hobby farms where it doesn't matter.
- Most intensive dairy, sheep and arable land in the UK has very few species of butterfly and at very low density.
- Butterflies survive on roadsides, gardens, quarries, woodland, military land, common land and nature reserves.
- These are islands in a green desert!

Pearl-bordered Fritillary

- Lost from site in 2003
- Reintroduced in 2009 from captive bred stock taken from Y Golfa
- Feeds on violets
- Needs nectar sources
- Needs a south facing warm site
- One of 8 sites in Wales
- Found in 2012 on Golf Course and SWT Reserve



Pearl-bordered Fritillary

(*Boloria euphrosyne*)

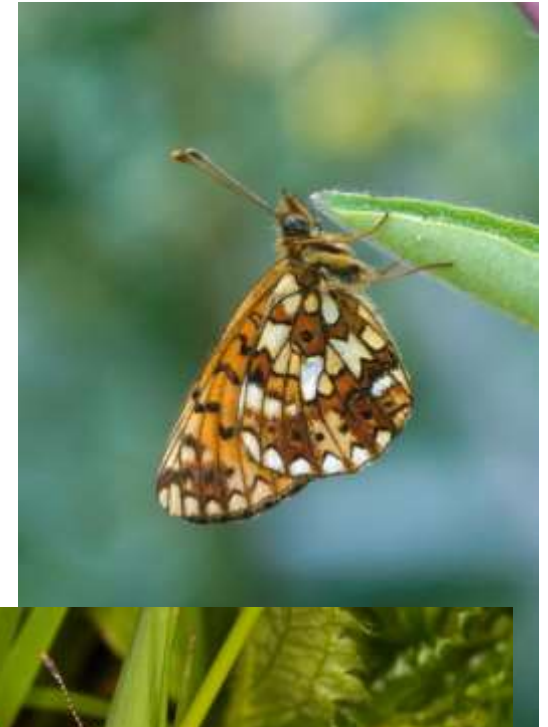
- April-June (1)
- Medium. Orange butterfly with black spots above. Underside with silver pearls and a single central silver spot on an orange ground colour.
- This species was reintroduced to the site in 2009 via a captive breeding programme.
- This used to be a widespread and common butterfly but Llanymynech is now only one of eight sites left in Wales of which six are in Montgomeryshire. The caterpillars feed on violets growing under bracken or on limestone grassland. The butterflies are difficult to distinguish from the following species



Small Pearl-bordered Fritillary

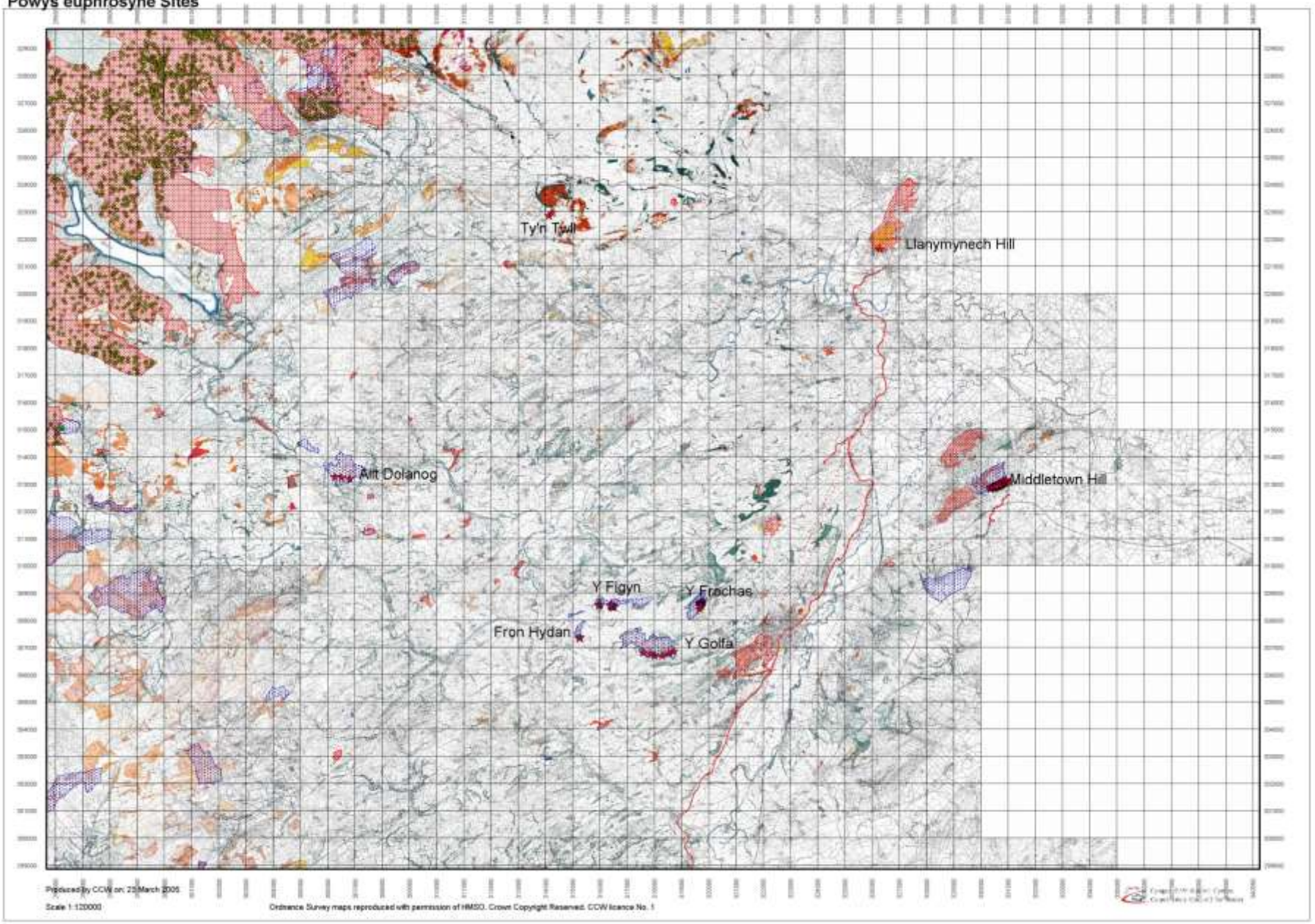
(*Boloria selene*)

- May-July (1)
- Medium. Orange butterfly with black spots above. Underside with several white spots on a brown ground colour with blacker markings.
- A rapidly declining UK BAP species.
- It is widespread in the Welsh uplands where it feeds on Marsh violet but on Llanymynech probably uses dog-violets (*Viola riviniana*)





Powys euphrosyne Sites



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Scale 1:120000

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High Brown Fritillary *Argynnis adippe*



High Brown Fritillary *Argynnis adippe*

- Similar to Pearl-bordered Fritillary
- Also feeds on violets
- Usually on violets growing in bracken
- Normally on South facing slope
- Adults may wander to find mates and nectar usually thistle flowers
- Males exhibit territorial behaviour
- Flies late June to early August

High Brown and Dark Green Fritillaries



Dark Green Fritillary *Argynnis aglaja*



Dark Green Fritillary *Argynnis aglaja*

- Similar to Pearl-bordered Fritillary
- Also feeds on violets
- Often on violets growing in bracken but also in unimproved grassland
- Normally on South facing slope
- Adults may wander to find mates and nectar usually thistle flowers
- More widespread than other fritillary species

Dingy Skipper

(*Erynnis tages*)

- April-June (1)
 - Small. Dark brown skipper. Can be confused with a moth
 - A BAP species* found rarely in Wales. Other colonies in Oswestry uplands
- * Biodiversity Action Plan Priority Species



Grizzled Skipper

(*Pyrgus malvae*)

- April-June (1)
- Small. Grey and black skipper with white cheques. Distinctive black and white fringes
- A BAP species found rarely in Wales. There are other colonies in the Oswestry uplands







White-letter Hairstreak

(*Satyrium W-album*)

- July-August (1)
- Small. Prominent W shaped line on underside. Usually only near elms.
- BAP. Recorded at Llanymynech for first time in 2012. Difficult to observe as often in tops of trees. Will fly down to nectar on bramble



Grayling

(*Hipparchia semele*)

- July-August (1)
- Medium. Upper side brown with yellow marginal band. Yellow brown underside mottled grey brown.
- Quick flyer that rests with wings closed.
- BAP. Very scarce and local species severely threatened and in low numbers at Llanymynech. Likes bare ground



Brimstone

(*Gonopteryx rhamni*)



- March-June (1) H
- Large. Male lemon yellow or female pale lemon yellow
- Scarce at Llanymynech but not a threatened species



Small Tortoiseshell

(*Aglais urtica*)

- March-September (2) H
- Medium. Red upper side with 3 black spots on front edge.
- Widespread but possibly declining



Comma

(Polygonia c-album)

- April-Sept (2)H
- Medium. Orange brown upper side with white comma mark. Wing edge ragged.
- Rarely common but not endangered



Peacock

(*Aglais io*)

- March-September
(2)H
- Large. Distinctive eyes. Black underside
- Common and widespread



Red Admiral

(*Vanessa atalanta*)

- March-September (2) M
- Large. Forewing black above crossed by red band and white markings
- Common and widespread especially if supplemented by migrants



Painted Lady

(*Vanessa cardui*)

- May-September (2)M
- Large. Black, orange pink upperside with back spots.
- Flies fast
- Common and widespread when early migrants breed





Orange Tip

(*Anthocaris cardamines*)



- April-June(1)
- Small. Male with distinctive orange tip. Female a small white butterfly. Both have green marbling on the underside of hind wing
- Abundant at Llanymynech and widespread in the UK



Large White

(*Pieris brassicae*)

- April-September (3) M
- Large. White butterfly black tips to the wings
- Widespread and abundant in some years due influx of migrants



Small White

(*Pieris rapae*)

- April-September (3) M
- Small. White butterfly with yellowish hind wing dusted with grey on underside
- Widespread and abundant in some years due to influx of migrants



Green-veined White

(*Pieris napi*)

- April-September (3)
- Small. White butterfly with yellowish hind wing underside **with grey/green along veins**
- Widespread and abundant. The common white of open country



Green Hairstreak

(*Callophrys rubi*)

- April-May (1)
- Small. Green underneath and black above. Looks grey in flight
- Common at Llanymynech where the hot conditions favour it



Holly Blue

(*Coelestrina argiolus*)

- April-September (2)
- Small. Pale blue almost white underside with small black dots. Blue above with black wing tips in female.
- Usually flies high.
- Common at Llanymynech where the hot conditions favour it. 7 year cycle of abundance



Small Copper

(*Lycaena phleas*)

- April-September
(3)Small.
- Shiny copper and black butterfly
- Common at Llanymynech where the hot conditions favour it



Speckled Wood

(*Pararge aegeria*)

- April-September (2)
- Medium. Dark brown upper side with yellow brown spots. Underside yellow brown.
- Likes shade
- Common and widespread.



Wall

(*Lasiommata megera*)

- April-September (3)
- Medium. Yellowy brown upper side with darker brown markings and spots. Underside grey brown with white dots.BAP.
- Declining species now lost from much of UK. Quite common at Llanymynech.
- Requires unimproved grassland. Likes hot rocky places



Small Heath

(*Coenonympha pamphilius*)

- May-September (3)
- Small. Pale yellow brown above with single black ringed white dot on underside forewing, small white dots on underside hindwing
- Can be common and widespread but does best in unimproved grassland that is not too long but not overgrazed





Common Blue

(*Polyommatus icarus*)

- May-September (2)
- Small. Grey or brown underside with black spots. Male blue, female brown on upper side.
- Usually flies low.
- Common at Llanymynech where the hot conditions favour it



Brown Argus

(*Aricia agestis*)

- May-September (2)
- Very small.
- Both sexes brown above with fringe of orange spots on upper hind wing
- Not seen for many years at Llanymynech.



Clouded Yellow

(*Colias crocea*)

- April-October (2) M
- Large. Mustard yellow with white spot on underside
- Widespread and abundant in some years due influx of migrants



Large Skipper

(*Ochlodes sylvanus*)

- June-July (1)
- Small. Brown skipper with faint chequered pattern on both sides of wings.
- Widespread where grass is allowed to get long but rarely numerous



Photo Peter Eeles

Small Skipper

(*Thymelicus sylvestris*)

- June-August (1)
- Small. Brown skipper with orange-tipped antennae. Essex skipper – black tipped antennae not recorded yet
- Common and widespread where grass is allowed to get long. Prefers more open sites than Large Skipper



Photo Peter Eeles

Silver washed Fritillary

(*Argynnis paphia*)

- July-August (1)
- Large. Orange butterfly with black spots and streaks above. Wing tips 'swept back'. Hindwing underside greenish.
- A woodland species not endangered though Montgomeryshire is the northern edge of its range



Purple Hairstreak

Favonius quercus

- July-August (1)
- Small. Black/purple above and looks grey underneath.
- Nearly always near oaks and flies most in early evening. Status at Llanymynech unknown.



YEAR

DATE

WEEK NO. WK 1 - 1st - 7th April
WK 2 - 8th - 14th April etc.

START

FINISH

AVERAGE
TEMP. (°C)

AVERAGE WIND
SPEED (0-6)

0 smoke rises vertically; 1 slight smoke drift; 2 wind felt on face;
3 leaves in slight motion; 4 dust raised & small branches move;
5 small trees in leaf sway; 6 large branches move & trees sway

WIND
DIRECTION

SECTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTAL
Small skipper	120															
Essex skipper	119															
Small / Essex skipper	124															
Large skipper	88															
Dingy skipper	46															
Grizzled skipper	110															
Clouded yellow	34															
Brimstone	54															
Large white	98															
Small white	100															
Green-veined white	99															
Orange tip	4															
Green hairstreak	23															
Purple hairstreak	118															
Small copper	68															
Small blue	36															
Brown argus	20															
Common blue	106															
Chalkhill blue	71															
Holly blue	27															
White admiral	64															
Red admiral	122															
Painted lady	123															
Small tortoiseshell	2															
Peacock	84															
Comma	104															
Dark green fritillary	12															
Silver-washed fritillary	17															
Speckled wood	93															
Wall	94															
Marbled white	78															
Grayling	48															
Gatekeeper	76															
Meadow brown	75															
Small heath	29															
Ringlet	8															
TOTAL																
SECTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	AVERAGE SUNSHINE

% SUNSHINE

NOTES:

PLEASE SEND COPIES OF YOUR RECORDING FORMS TO YOUR LOCAL CO-ORDINATOR (DETAILS AVAILABLE ON THE BC & UKBMS WEBSITES) BY THE END OF OCTOBER. DATA IN TRANSECT WALKER FORMAT SHOULD BE SENT IN BY THE END OF NOVEMBER.

Photo Credits

- A big thank you to
- Peter Eeles (UK Butterflies)
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- Jim Asher (BC)
- Neil Thomson