SUFFOLK BRANCH NEWSLETTER

The Suffolk Argus

Volume 89 Spring 2024

Butterfly Conservation

Saving butterflies, moths and our environment

BUTTERFLY CONSERVATION SUFFOLK

2023 Members Photographic Competition Winners

October's AGM and members' meeting hosted another photo competition organised by Kev Ling. Voting results were close and the winning photos are shown below.

First place - Large Skipper by Harry Faull

Second place - Silver-washed Fritillary by Harry Faull

Third place - Silver-studded blues by Nick Amor

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Social Media. We need some help!

The Branch has an active Twitter, now X, account which is busy with frequent posts. We also have a Facebook account, but in the last few years its use has fallen by the wayside. We wish to resurrect this account and create a new Instagram account too.

For this to happen we need help. Are you a Branch member who has a reasonable knowledge of butterflies and moths and is competent and confident with social media. Would you enjoy administering the Facebook and Instagram accounts? If you are enthused and would like to discuss this further, contact.

Peter Maddison, Chair.
prmaddison@yahoo.co.uk

Editorial

Trevor Goodfellow

Another packed issue here featuring foreign travels, members' observations, Species Champions' reports for Dingy Skipper and Wall Brown, and the events calendar, plus much more, however some items I promised in the last edition may be postponed until later.

As a new butterfly season dawns and we all start hunting and recording again, it is a good time to look out for those hibernating adults that may be trapped in sheds and unused rooms.

For me 2023 was a record year for the number of moth species which included 4 or 5 Clifden nonpareils all shown to be different individuals. This year I hope to prove they are breeding in our Poplars and Aspens.

At the AGM last October, it was good to meet up with members and exchange experiences. The guest speakers were all very interesting and informative and thanks to all concerned with organising it.

Don't forget that we have moth traps available for loan to members. Those keen first-timers that experimented with moth trapping last year told me that despite the 'hit and miss' success, overall, they were pleased with the results. If you are interested, email me at suffolkargus@gmail.com .

Trudie Willis

We are saddened to hear that Trudie Willis, whose annual Garden Open Day has been much enjoyed by members and the public, has died after a lengthy illness.

We send our condolences and heart-felt good wishes to her daughter and family.

An appreciation of Trudie's considerable involvement with the Branch will appear in a future Suffolk Argus.

Copy date for the Summer edition is May 26th 2024

Cover image: Pebble prominent (Notodonta ziczac), larva on Aspen by Trevor Goodfellow

Contents

BUTTERFLY CONSERVATION SUFFOLK

Wild Spaces, the national BC project to create spaces for butterflies and moths to thrive.

butterfly-conservation.org/wild-spaces

Create **Wild Spaces** in your locality - window boxes, patio planters, gardens, village green spaces can all become Wild Spaces where butterflies and moths can feed, breed and find shelter.

How to do this? Ideas - loads of them – can be found at:

butterfly-conservation.org/wild-spaces

Register your **Wild Space** at: butterfly-conservation.org/wild-spaces

Members' Afternoon and the Annual Business Meeting

The meeting was held on Saturday 7th October 2023 at Stowupland Village Hall, where about 45 members and guests had gathered. 8 people had sent their apologies.

The Chair welcomed all present and introduced the speakers, Liz Cutting, Bill Mayne and Roger Gibbons.

The Minutes of the previous meeting were available for members as a paper handout, as was the Chairman's Review of the year and the Treasurer's Report. Kev Ling, Treasurer, noted that our financial position remained healthy. An engraved garden bench had been donated to Trudie Willis. Over many years her Garden Open Days have raised many thousands of pounds for the Branch. The separate Legacy Fund had been used to help create wildflower meadows and manage lepidoptera habitat, especially in mid-Suffolk – we are open to further suggestions from members.

No Committee elections were necessary.

The date of the next meeting will be Saturday 19th October 2024 at Earl Stonham Village Hall.

The afternoon was given over to:

Liz Cutting who showed skilfully produced photos of small animals and spoke about the techniques that she used.

Bill Mayne who lives near Woodbridge, farms according to regenerative methods. He has concentrated on improving the fertility of the soil and in the process has created many new hedgerows and habitat improvement features. We are likely to hold a field event at Bill's farm during 2024.

Roger Gibbons from Hertfordshire is well known for his knowledge of European butterflies, particularly those of France. Roger gave a fascinating talk about butterfly

behaviour, explaining what we know, what we think we know, and what we don't know. This covered earliest emergence of moths and butterflies and topics such as present-day migration, predation, camouflage, distribution and courtship.

Photography Competition Winners:

1st. Large Skipper by Harry Faull

2nd Silver-washed Fritillary by Harry Faull

3rd Silver-studded Blue by Nick Amor

See page 2 for photos.

Second Brood Brown Argus 2023 Observations

BC Garden Survey, Beccles by Graham Jackson

8th October.

From about 11.30 to 12.00hrs I observed a female Brown Argus (photo below) flitting around and on small plants of Black Medick (*Medicago lupulina*) and Dove's Foot Crane's-bill (*Geranium molle*). Eventually she adopted egg-laying position on both of two leaves of a Crane's-bill which had three leaves. This despite the Black Medick outnumbering the Crane's-bill by many hundreds on site and my having observed the same behaviour by other Brown Argus previously on Black Medick. This time I was able to confirm an egg laid on two of the Crane's-bill's leaves.

Adult laying egg on Black Medick

BA egg on Geranium molle

13th October.

No adults sighted but discovered a few more Brown Argus eggs on Geranium molle; mostly on smallest two- and three-leaved seedlings.

A few eggs found on upper leaf surface but most on the underside.

There is an unidentified white object on the larva, but the photo resolution doesn't help further identification.

This could be a parasitoid maybe an ectoparasitoid rather than one which has emerged out of the larva.

Larva with white spot

BA f on Black Medick

The above Brown Argus shows black discoidal spots on the upper side of the forewings have white marks on their lateral aspects. Not the 'white rings' of typical ab *snelleni* but distinct, nevertheless.

Today I again had two adults basking in the sunshine and feeding on hawkweed-like flowers.

This despite temperatures, in the shade, between 10.5 and 12.5 deg C from 11.30 to 15.15hrs.

16th October

I have now recorded the species presence here on 52 days this year.

The same as for Large Whites and Peacocks. Only beaten by Small Whites

(83 days) and Red Admirals (71 days).

Perhaps not a fair comparison as I recorded 53 individual Peacocks on one day in August, whereas never more than 4 BAs on any one day.

BA 1st instar larva c.1.5mm long on G.molle leaf

Further sightings of BA adults until 17th October. Mostly singletons, but occasionally 2 or 3, on the days noted.

None seen on 5th, 6th, 7th, 12th and 13th nor subsequently on 18th to 20th.

A fresh adult BA seen on 15th, 16th and 17th had less commonly reported version of the underside hindwing 'colon'/'figure-of-eight' spots.

The inner, more caudal, spots lacked black centres and were small. This feature on the left wing was more diminutive compared with the right wing (photo below).

I continued to find Brown Argus eggs and larvae on smallest plants of *Geranium molle*; several on the upper leaf surfaces.

I'm wondering if others are noting Brown Argus adults this late in October this year. (*all photos by Graham Jackson*)

2024 Events Calendar

Please check online for any updates on the following events before registering to attend.

Sunday 28th April 2024
Pakenham Water Mill Wildlife Day **
Family event attended by Suffolk Butterfly Conservation and other Conservation groups in beautiful surroundings

Entry fee: £5 (children free) free parking.
Refreshments and family fun.
Enquiries: Ian Robertson 07876 644 611

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Enquiries: Ian Robertson 07876 644 611

Monday 6th May 2024
Spring Wood Celebration Day - FREE FAMILY EVENT**

Join Suffolk Branch of Butterfly Conservation and lots of other conservation groups at Kiln Meadow. Butterfly and other guided walks, wood crafts, children's activities, music and storytelling. Park at Bourne Park off Stoke Park Drive and take free minibus to the event on Kiln Meadow.
There will be a butterfly walk if the Green Hairstreak is on the wing.

Where: Kiln Meadow, off Marbled White Drive, Ipswich
Map Ref: TM143416
Time: 11.00 am to 4.00 pm

More details nearer the event

Monday 13th – 26th May 2024
Dingy Skipper Count
Dependent upon weather so exact date will be known nearer the time.

Register your interest at suffolkargus@gmail.com to get updates

Where: King's Forest, Wordwell
Location reference: TL826738. Nearest post code IP28 6UR
Meet: at small car park west side of Brandon road opposite cellphone mast
Time: 10.00 am to 1.00 pm approx.
Leader: Trevor Goodfellow -
Email: suffolkargus@gmail.com , mobile 07900 696960

Wednesday 29th May 2024
Sudbourne and SWT Captain's Wood
A three hour walk for early butterflies and a search for 1st generation Wall Brown.
New members and those wanting help with butterfly identification are most welcome.

Please contact the leader for parking and event details.
Time: 10.00 am to 1.00 pm
Leader: Peter Maddison
Contact: Phone 01473 736607,
Email: prmaddison@yahoo.co.uk

Sunday 9th June 2024
Brampton Wood Nature Reserve
Brampton Wood Nature Reserve, nr Huntingdon for Black Hairstreak.

Meet: Brampton Wood car park
Location reference; Grid Ref. TL184698,
Sat Nav. use PE28 0DB and continue west, away from A1, for 3/4 ml,
Time: 11.00 am to 3.00 pm
Leader: Peter Maddison
Email: prmaddison@yahoo.co.uk
Contact the leader near the time for details.

Tuesday 11th June 2024
Burgh House Farm Walk
Guided by owner Bill Mayne, a walk through 100 acres of regenerative farmland, seeing butterflies and wild orchids.
Wear suitable clothing for walking on rough or wet ground.

Meet: Burgh House Farm,
Location reference: Burgh IP13 6PU
Time: 10.00 am To be confirmed
Leader: Trevor Goodfellow
Register interest:
Email: suffolkargus@gmail.com

Friday 14th July to Sunday 6th August 2024
BIG BUTTERFLY COUNT **
For more details visit **Big Butterfly Count (butterfly-conservation.org)**

Saturday 13th July 2024
Northfield Wood, Onehouse
Woodland species including Silver-washed Fritillary, White Admiral
(Northfield Wood is owned and managed by the Woodland Trust and is accessible by the public.)

Where; Meet at Community Centre, Forest Road, Onehouse (parking available)
Location reference; Post code: IP14 3HJ; What3Words: editor.sizing.engulfing
Time; 10.30am to about mid-day
Contact; Mark Brewster - Mobile 07759024440,
Email: mark.ian.brewster@gmail.com

Sunday 21st July 2024 GARDEN OPEN DAY **
Wildlife Garden Open Day
An invitation from Lucie Pascoe, the daughter of the late Trudie Willis, to visit her 10-acre garden, including a Buddleia and Honeysuckle collection.

Meet: Park at Prior's Oak, Leiston Road, Aldeburgh (B1122 Leiston to Aldeburgh Road)
Location reference: Map grid ref. TM452591, Post Code: IP15 5QE
Time: 10.30 am to 4.00 pm
Contact: Peter Maddison
Email: prmaddison@yahoo.co.uk 01473 736607

Saturday 27th July 2024
Pakenham Wood SWF Walk
Woodland Walk for Silver-washed Fritillaries and White Admiral

Meet: car park behind St. Mary's church
Location reference: at Pakenham IP31 2LN, Grid Ref TL930670
Time: 10.30 a.m. – 12.30 p.m. approx.
Leader: Trevor Goodfellow

Email: suffolkargus@gmail.com

Saturday 19th October 2024 at 2.15 pm
Suffolk Butterfly Conservation A.G.M & Members Afternoon 2024 **

at Earl Stonham Village Hall, IP14 4BG

After a short session for official business we will hear from our invited speakers.

Sharon Hearle, **BC Regional Officer Eastern England**

Pete Eeles, **Author of *British and Irish Butterfly Rarities, Migrants, Extinctions and Introductions (2023)***

There will be Refreshments (time to talk over a cup of tea), a Raffle and our annual Photographic Competition (See below).

Enter our photographic competition 2024 – see website for details

Saturday 9th November 2024

Butterfly Conservation National Annual General Meeting **

You do not need to contact us to attend events marked **

Important information

As with any other activity, there are hazards in the countryside and everyone taking part in an event has a responsibility (duty of care) for their own safety and that of others. We try hard to ensure that our events present no greater hazard than any other walk in the countryside, but we would encourage anyone planning to attend an event to read and act on the following advice:

• Wear appropriate footwear. If there are unusual requirements these will be noted in the event programme, but stout shoes are a minimum requirement for any walk.

• The leader will brief you on the trip before setting off, with details of any known hazards and advice on what to do in an emergency – please listen carefully.

• By their nature, butterflies are not always to be found next to the path and will offer many opportunities (temptations) to wander off the track. It's easy to be distracted and to miss potential hazards such as rabbit holes, fallen or hanging branches, barbed wire etc. Beware of wet grass or moss, particularly on sloping ground. Children are welcome at branch events but, if under 16, they must be accompanied by a responsible adult (maximum of two children per adult). If you are bringing children with you, please ensure that the event is within their capability.

• Dogs may be allowed at some of the events. Please contact the leader in advance to find out if the event is suitable.

• If you are uncertain about any aspect of an event or activity, please contact the leader in advance.

Contact details can be found with each event entry. Do let the leader know if you need, or can offer, a lift. If you decide to leave early, please tell the event leader. Please note that persons who take part in these events do so entirely at their own risk and The Suffolk Branch of Butterfly Conservation cannot accept liability for any injuries or losses during the course of an event.

2023 Recording Butterfly Sightings

Twm Wade

So, you ask, "What are Pollard Walks?" A chap called Ernie Pollard with friends set up a scientifically viable method of counting butterflies by sampling what is seen in an area. More commonly they are known as transects. The method requires people to walk the same route at regular intervals counting butterflies seen within an imaginary 5m cube. Transects are walked weekly from 1 April to 29 September unchanged year after year.

Starting in 1976 transects were the only methodical scheme until the Wider Countryside Butterfly Survey (WCBS) was established in 2009. It is also a sampling of an area using the same method except it is only asked that the route is walked twice a year, July and August. The other feature is that the area is randomly selected based on OS 1Km squares.

As you would expect, transects produce the greater number of butterflies seen in a year. Over the whole country transects produce a fuller picture of how butterfly populations fluctuate. Transects are created by individuals and teams and often for a specific reason and this creates a bias. The WCBS acts as a counterbalance as the sites are randomly selected but, like transects, it does not include species that inhabit treetops. That aspect is being addressed.

For those of you who like numbers here are some. We have 35 transect areas that produced a total of 27,414 sightings spread across 29 species. Meadow Brown was the most abundant with 5,319, followed by 3,870 Gatekeepers. The least abundant was the Green Hairstreak with 13. We also have 49 active WCBS OS squares that produced a total of 6,539 sightings spread across 31 species. Again, Meadow Brown was the most numerous with 1,460, again followed by Gatekeeper at 1,069. The least recorded were Marbled White and White Admiral, one of each.

The greatest part of the work involved is done by volunteers. If you want to find a WCBS square near you then look at the branch web-site: www.suffolkbutterflies.org.uk/WCBS . If you would like to help on a transect, I know of two sites where help is being sought. They are at Bury St Edmunds and Dunwich Forest near Darsham. Experience is not required so let me know if interested at twm.wade@yahoo.com.

Nectar Sources for Garden Butterflies-V is for Viper's Bugloss, Valerian and Verbena Bonariensis.

Richard Stewart

Of these three I don't really associate Viper's Bugloss with gardens, the image coming to mind being its proliferation in the King's Forest. There it attracts many Small and Essex Skippers and it certainly could form part of a wildlife meadow. Margaret Vickery's much quoted top two hundred garden nectar sources lists nine different species but only from a low average of twelve reports a year. Valerian is a more popular garden plant though again it tends to grow profusely in shingle banks such as those at Aldeburgh and Orford Ness. We have found it prefers to grow outside a pot and is particularly seen on garden walls. Our garden total is five species, namely Small

Tortoiseshell, Large White, Painted Lady, Small Copper and Red Admiral. Margaret Vickery lists eight species, but Valerian also attracts moths. We have seen many visits by the Hummingbird Hawk moth, even in dull conditions, and Valerian can have a flowering period covering several months. *Verbena bonariensis* is described in my garden encyclopaedia as being able to survive a mild winter and it will 'cheerfully grow over forty inches tall and bears rose-lavender flowers for most of the summer'. Its height suggests placing at the back of a border, but its shape allows a more prominent planting without masking other plants. It is just outside Margaret Vickery's top twenty with twenty-two species and being the preferred nectar source for Large and Small White, Comma, Peacock, Small Tortoiseshell and Painted Lady. Our garden total is thirteen, plus Hummingbird Hawk moth, making it an important nectar source in summer.

The Ringlet in 2023

Richard Stewart

I found this species very difficult to locate, and in fact only recorded it at Wolves Wood, a traditionally damp habitat. My own records for the past eight years show the number of site records for Ringlet were, respectively: 20,13,8,10,11,8,10,9, the effect of Covid restrictions reducing later totals. In 2023 I did a detailed survey of part of the RSPB's North Warren reserve, my route being close to two extensive reed beds. Four visits were made during its normal flight period, but none were seen. For once it also didn't appear in our garden on the edge of Ipswich and Paul Gilson, who was with us when we saw them at Wolves Wood, also had no garden sightings and only saw Ringlets at one other site, Gosbeck Wood. No doubt our county recorder will be able to comment from a more extensive data base, but it could be a national phenomenon as the latest Dorset BC newsletter, reporting on a field meeting at Winfrith Heath, mentioned seeing just one Ringlet all day and with the comment that it was 'a species which seems to be having a very poor year'. *(30+ in 2019 and max. 5 in 2023 for me: Editor)*

Death of a Pest

Wilfrid George

My butterfly collecting days finished when I gave them to our museum in 1997 – but you never lose that interest. So, as I sat at my front window at 4.15 pm on a cloudy but calm Monday 23rd October 2023, I was quite surprised to see a white butterfly fly leisurely across

my front garden. Surely it was not warm enough for butterflies. So, I took my thermometer outside, where it sank to 14.5 degrees. I walked across to where it had looked to have settled on a low lilac bush, but it was not settled at all – it was a male Small White suspended in mid-air from a spider's web. The quite large, fat, chocolate brown spider, with a white broken stripe down its back, was trying hard to wind its thread around the white wings (two or three times its own size). I watched for a good quarter of an hour as the white bundle got smaller and smaller. There was no sign of a struggle – I just hoped that the spider's venom was anaesthetic. I went back indoors, and daylight began to fail – and I could no longer see the tiny white bundle from my window. At 9.45 next morning – damp, drizzly and only 13.5 degrees C – I could find no trace of web, spider or butterfly.

Butterflying in Kefalonia

David Tomlinson

As any butterfly enthusiast will confirm, October isn't a great month. There may be a few Red Admirals on the wing, along with Small Coppers and Speckled Woods, but the season is fast coming to an end. There is, of course, as simple way to extend it, and that's to go south. Last autumn I spent the first 11 days of October on the Greek island of Kefalonia and was delighted to find a fine variety of butterflies still flying.

Kefalonia, the largest of the Ionian Islands, is well south - it's on a similar latitude to Alicante, or Sicily. It's an island that still retains a great deal of its natural vegetation, with hills and mountainsides covered in typically Mediterranean forests of Ilex Oak. There's not much agriculture except olive-growing and a few vineyards, while from a birdwatching point of view it only has a single wetland of any significance. During my visit I managed to find 57 species of birds, confirming that Kefalonia isn't a great birding destination.

Butterflies, though, are another matter. The island's official list is over 60 species, so rather more than we have here in the UK, despite it being a much smaller area. There's no doubt that a visit in spring or summer would produce a much bigger list than I managed in October, but I still managed to find 27 species without trying too hard. I've no doubt that a more single-minded approach would have produced more.

My visit was blessed with great weather: the sun shone every day throughout my stay, with daily temperatures usually peaking at around 27degC. There was one trouble with such warmth, for many of the butterflies I encountered were hot and hyper-active. Every day I saw several Two-tailed Pashas, one of my favourite Mediterranean butterflies. Yet despite such regular sightings I never managed to find one settled, so never succeeded in pointing my camera at one, which was frustrating.

The same was true of the Southern White Admirals I found. These are another favourite butterfly, and I had seen and photographed them earlier in the year in Northern Greece. I was surprised to find them on the wing so late in the year, as I'd always thought of them as butterflies of late spring and early summer, like our White Admiral. Incidentally, most of my field guides are quite pessimistic when it comes to flight periods, as I've found that many species fly well beyond the last dates the books suggest. Tolman, for example (Collins Field Guide) notes that the Southern White Admiral is double-brooded, with the second brood flying from mid-July to August. I can assure you that they fly well into October.

I couldn't find many references to Kefalonia's butterflies online, but its butterflies are very similar to those of nearby Corfu, which has its own organisation, Butterfly Conservation Corfu. This has an excellent website in English that includes recent sightings. I frequently checked my sightings with those on Corfu to ensure that my identifications were both feasible and correct. On Corfu last year, the first Southern White Admiral was noted on 25th April, the last on 20th October.

One butterfly I was particularly pleased to find was Plain Tiger, the Monarch look-alike that is a migrant from Africa. This is a late-season butterfly (the first record of the year in Corfu last year was 28th September). I encountered just one on 5th October, close to the beach on

the island's west coast. Alas, it was in a garden where I was unable to photograph it.

I've seen Wall Browns flying in Norfolk in late October, so it was no surprise to find that they were still common in suitable habitat on Kefalonia. I was pleased, too, to find Large Wall Brown, but the individuals were on a steep and rocky hillside where pursuit was tricky, to say the least.

In the UK we regard Wood Whites as rarities, restricted by lack of suitable habitat. In Kefalonia I found them to be both common and widespread in a variety of habitats. Another pleasing sighting was the Eastern Bath White, a butterfly that is visually identical to the Bath White and can only be separated by biochemical analysis. Needless to say, I didn't do any such thing, but separated it on distribution, as the Bath White isn't found in Greece. Eastern Bath Whites are on the wing from February through to November. Clouded Yellows were as numerous as you would expect, including a high proportion of pale *helice* females.

Both Lang's Short-tailed Blue and Long-tailed Blue were common, and I also saw Brown Argus and Common Blue, both very widespread butterflies throughout Europe. I never managed to identify the graylings I saw to specific level: were they Eastern Rock or Dellatin's? Great Banded Grayling was much easier to put a name to.

Swallowtails are always a delight. Southern Swallowtail does occur, but it's a spring-flying species. I did see both Swallowtail and Scarce Swallowtail, though neither were numerous, suggesting that they were coming to the end of their season. I failed to photograph either until my last morning, when a beautiful Scarce gave itself up. Though it appeared very fresh, it had already lost the tips to its tails. However, it still made a very satisfying subject for my camera and was my last notable butterfly of a most enjoyable trip. (*All photos by David Tomlinson*).

Clouded Yellow sp. var. helice

Scarce Swallowtail

Delattin's Grayling

(continued on page 17)

Wall Brown

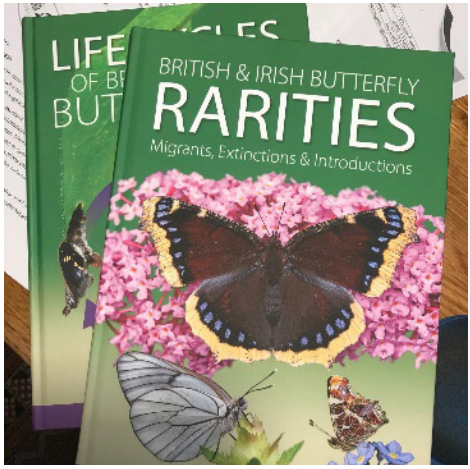
Large Wall Brown

Long-tailed Blue

British & Irish Butterfly Rarities, Migrants, Extinctions & Introductions. By Peter Eeles (Pisces, £32.50)

Reviewed by David Tomlinson.

Rather more than 20 years ago, I was asked if I would write a guide to British butterflies. I agreed, but greatly under-estimated the amount of time it would take. It was worth the effort, as the WILDGuides *Britain's Butterflies* is still in print today, several editions later, but it was surprisingly hard work. This experience left me wondering whether Peter Eeles had really considered what he was taking on when he decided to write a book on our rare butterflies. *British & Irish Butterfly Rarities, Migrants, Extinctions & Introductions* is a hugely impressive book, meticulously researched and well written. It's a handsome 368-page volume packed with information, considering no fewer than 62 species that have occurred, or have been claimed to have occurred, in Britain and Ireland. It's not a book anyone is going to read from cover to cover but is one you can dip into and enjoy if only reading a single species account.



Many years ago, I used to commute to London, driving daily along Coldharbour Lane (once Cold Arbour Lane), where Britain's first-ever specimen of *Nymphalis antopa* was caught in 1748. It's now a dreary suburb of London, and I don't recommend a visit, but this connection prompted me to turn first to the chapter on the Camberwell Beauty. Eeles devotes no fewer than 14 pages to this handsome butterfly, looking carefully at its distribution and life cycle, before summarising in some detail the British records. Like almost all accounts, it's profusely illustrated, while Eeles doesn't hesitate to use quotes to enliven the text. I was fascinated to read of a possible breeding record of this butterfly in Lincolnshire in 1996, when "Pam Cook of Fulbeck Manor had five Camberwell Beauties feeding on her Black Tzar plums, along with 19 Red Admirals…"

All our major rarities, from the Monarch to the Bath White, get similar extensive coverage. In the case of the Black-veined White, Eeles considers its former abundance, its decline and eventual extinction, along with a careful analysis as to why this species might have become extinct here. He does conclude that climate change "at some point may once again make England again suitable for this butterfly" though he believes that they would need "a helping hand". It will be interesting to see whether the Black-veined Whites found flying near Croydon last spring will reappear this year. The book is divided into three principal parts, with the first and by far the longest the "primary listing" - all those species for which there is hard evidence of their occurrence in the British Isles. However good your knowledge of our butterflies, you are certain to learn something new here. I didn't know that Mountain Ringlet once was to be found in Ireland (last record 1918), nor that there is sufficient evidence for the Apollo to be considered an extremely rare vagrant to our shores, or that the American Painted Lady has been recorded here quite so regularly - "the overwhelming opinion is that the butterfly is an infrequent migrant to Britain and Ireland".

Part 2 looks at what Eeles calls the adventive species, those butterflies that have been recorded here, but "could not conceivably arrived under their own steam". There's a surprising number of them, and they are all fun to read about. How did a Small Apollo come to be flying in Snowdonia on 1 September 1887, or a pair of Large Walls manage to find their way to Shrewsbury in August 1932? There are a remarkable number of records of Weaver's Fritillary, with the most recent one in Dorset in April 2023 (this book is bang up to date). Not surprisingly, the Geranium Bronze gets plenty of coverage, but it's thought unlikely to become established here (gardeners can breathe a sigh of relief) because it's unable to survive our winters.Questionable records are the subject of Part 3, featuring such unlikely species as Albin's Hampstead Eye ("probably the first dubious record among the British and Irish butterfly fauna", the specimen was caught by one Eleazar Albin on Hampstead Heath in 1717) and the Scarce Copper. According to Eeles, "the suggestion that the Scarce Copper could be called British has caused a debate like no other". The last chapter is entitled Future prospects. It makes a fitting conclusion to this fine book, suggesting that the most likely colonisers in the relatively near future include the Continental Swallowtail, Large Tortoiseshell and Long-tailed Blue, while there's no chance of the Monarch colonising, as its food plants aren't found here.

The publishers, Pisces, (part of the NatureBureau) have done a fine job, for *Rarities* is attractively designed, the photographs all

beautifully reproduced, the layouts clear and inviting to read. The high price of £32.50 reflects the cost of production, but don't let it put you off buying it, as it makes a great addition to any butterfly library.

Peter Eeles will be guest speaker at our Members' Afternoon on Sat 16th Oct

Brood or Generation

Trevor Goodfellow

We often use the word 'brood' as a common term for a life cycle, and a subsequent brood is technically the next generation but referred to in books as '2nd brood' if this occurs in the same year.

The following examples show some diverse brood types and some theoretical.

1 A butterfly whose offspring adults hatch the same year.

Peter Eeles excellent 'Life Cycles' book is very thorough, explaining every detail down to larval instars. In this book he suggests that in the case of the Brown Argus, the 2 broods are 2 generations i.e., 2nd brood is offspring of the 1st brood. With just a few weeks in between broods and adequate food, this seems possible, but this means that the early brood don't get to overwinter at any stage perhaps adapted to speeding up their growth rather than the 2nd brood which stall their growth to survive till the following year (larvae overwinter). But what happens if the 1st brood suffer poor conditions and fail to develop enough to produce the 2nd brood to get through the winter? In this scenario maybe growth will be slowed down and it becomes the 1st brood larvae that get to overwinter. Sounds like they would be walking a 'tight rope' for survival if this is the case but it seems to work.

2 Adult butterfly hatches in spring or summer and its offspring adults hatch the following spring or summer respectively.

Let's look at another possibility. Two separate generations, one hatches early and the other hatches later, but the early butterflies' offspring will be the early brood seen the following year. To clarify: imagine one species but two 'families' – an early one and a late one. Peter Eeles quoted Richard South who suggested this occurs in the case of the Small Heath which has multiple broods (multivoltine), the 12-month life cycles often overlapping apparently giving one continuous long season.

3 One complete life cycle in 12 months (univoltine).

Like item *2*, but perhaps the normal way for reproducing it seems, one generation per year e.g. Orange-tip.

4 Offset cycle

Overwintering adult which has 1 or 2 broods as per item *3* e.g. Small Tortoiseshell.

5 Exceptional

An interesting exception is the Arran Brown (*Erebia ligea*), which takes 2 years to complete its development! *(Peter Eeles)*

Conclusion:

Is it a simple case of "the last brood in any given year is referred to as the first brood the following year, no matter what stage it overwinters in" as Peter Eeles suggests?

Suffolk Dingy Skipper Summary (2023)

By Trevor Goodfellow

Dingy Skipper (DS) - Erynnis tages

2023 Goals:

1. Survey known colonies to assess population and compare with recent records from NBN Atlas, WCBS and iRecord.

2. Carry out extensive surveys of areas surrounding known colonies to ascertain habit availability within DS flight range.

3. If necessary, formulate habitat management plan with Butterfly Conservation (BC) and Forestry England (FE) plus other parties where appropriate.

To get a baseline to work from, I needed as much existing information as possible. To do this I trawled through reported sightings from as far back as the 1970's up to current posts, with the help of the National Database and iRecord. Added to this, I kept an eye on current sightings posted on the SBBC sightings webpage.

It was also important to survey as much of the King's Forest as possible to see if there were any viable sites within flight range of existing colonies and where possible, arrange improved habitats with the assistance of Sharon Hearle at BC. With about 2,000 hectares (5,000 acres) of forest and possibly 800 kilometres (500 miles) of rides, I was only ever going to scratch the surface of course.

Habitat surveys carried out before the DS flight period would give me some idea of any site that I could return to hoping to find them. Sometimes Bird's-foot-trefoil - *Lotus corniculatus* (BFT) is sparse and other sites it is plentiful although neither appeared particularly significant when compared with sites where there are existing colonies. In that case, why are DS not more widespread? We don't know, except that it is documented that DS dispersal range is limited and boundaries like tree belts are not usually crossed.

Sterling work by Sharon with FE, meant that I didn't find any additional work that I regarded necessary, in fact suitable habitats with foodplant present were widespread.

Despite the offer of help from several willing volunteers with a 'flexible agenda', poor weather that resembled April rather than May, meant schedul-

ing surveys or counts to coincide with a warm sunny day, was almost impossible, so I was very often unable to reward the kindness of volunteers with a sunny walk in the forest surrounded by Dingy Skippers which showed about 10 days late.

The cold nights and only intermittent warm sunny spells made for a difficult season and therefore total counts were way below that of 2022 (78+, possibly because of favourable conditions in 2021). It was noticed that the spring of 2022 was drier and consequently the BFT struggled to establish before the drought shrivelled most or all of them up, leaving few options for ovipositing females. One might have thought that this would have encouraged dispersal but maybe the conditions were just too widespread.

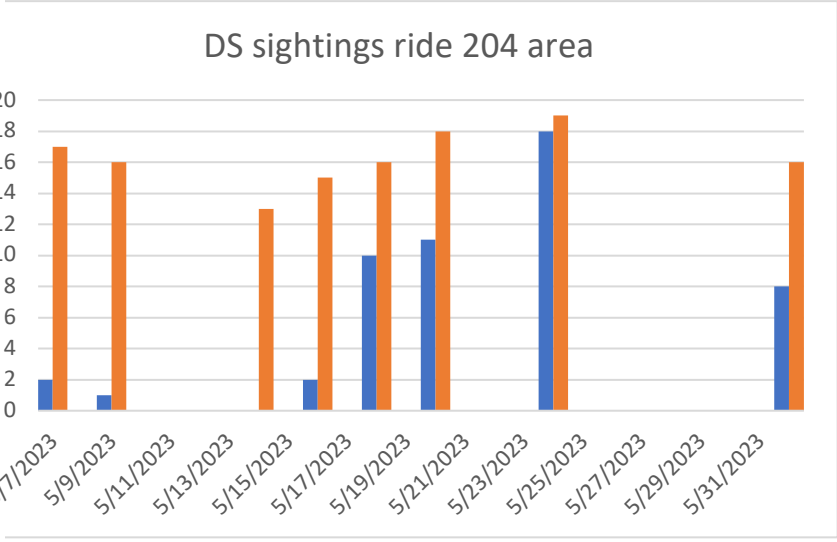
The night-time temperatures below 10 degrees centigrade till the second week of June may have slowed down DS emergence, but we all hoped that things would improve before the very end of their expected season. It is interesting to note that June's rainfall equalled one day's rain in July and the measly 420mm that fell in the whole of 2022 (see chart below), is half that which fell in Pakistan in 24 hours!

I found that the DS were not unduly affected by the wind, but when the temperature rose over 15 degrees, they certainly livened up, but only if it was sunny too; important for basking and flying, not just the temperature alone. As soon as a cloud covers the sun, they can tend to take cover in short vegetation close to a warm patch of bare ground. These factors are relevant when counting because they are easier to spot when flying, and far easier to pass by when resting/roosting.

First sighting for 2023 was on 7/5/23 and the last was on 2/6/23.

Distribution has diminished according to records, but this is mainly attributed to previous DS sites: Centre Parcs and RAF Barnham camp access restrictions have limited records to King's Forest.

Landseer Park and Orwell Country Park sightings are deemed spurious releases. No records for Centre Parcs (WCBS transect received at the time of writing. *(Full survey summary available on SBBC website and more information available when the 2023 SBBC county report is available).*



Above chart shows an apparent correlation between average daytime temperature (orange bars) and number of specimens recorded (blue bars), perhaps confirming a minimum temperature of 14-15 deg C to induce activity.

Early specimens are likely to be mostly males actively searching for emerging females asap making counting a little easier. I assume that warmer nights would allow them to roost characteristically on a flower or seed head a few centimetres off the ground, making them more visible.

No new colonies were discovered this year, and existing ones (ride 204+ clearing) are surviving but far from thriving.

Chalk lane (ride 210) was depleted when surveyed (2023) despite numerous visits on sunny days, the apparently perfect habitat did not reveal any sightings however, 2 DS were reported in an adjacent ride, but I was unable to locate these the following day.

If 2 individuals were seen one day and none thereafter, this might suggest dispersal, it is indeed possible. Maybe the conditions became less favourable, so they went to ground and not disturbed when further surveys took place. Therefore, I cannot confirm that any dispersal of the DS was taking place. Perhaps with a 'normal' season with a good-sized colony one might be able to establish this.

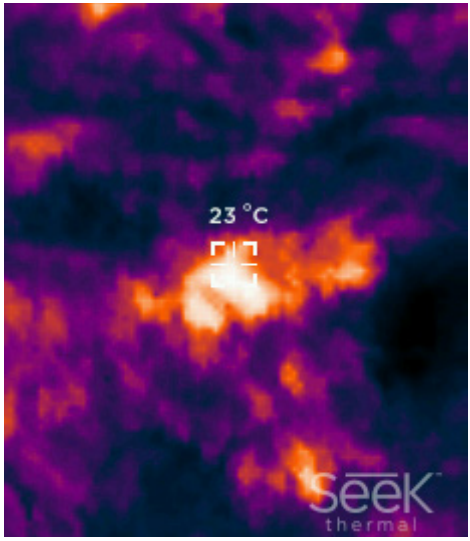
Please contact me if you are interested in joining up for the 2024 count or search independently if you wish but be sure to record your sightings.

Over 20 surveys were made equating to 80 + kilometres (50+ miles) covered from mid-April to early June 2023.

Thanks to the volunteers: *Nick Amor, Jo Scott, Keith Winch, Jane Henderson, Twm Wade, Liz Cutting* and for others who recorded their sightings. Recorders required to cover Barnham Common for 2024, please email:

suffolkargus@gmail.com

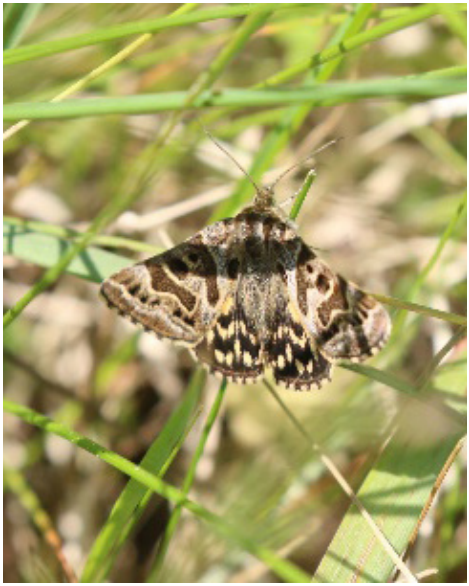
A slight impression (Chalk Lane) on a mild day and a thermal image of the same, showing a hot spot at the lowest point.



Below are some similar looking day-flying moths that share flight times with the DS.

Small Yellow Underwing
Panemeria tenebrata

Burnet Companion
Euclidia glyphica



Mother Shipton
Euclidia mi

Mulligan Micro

Trevor Goodfellow. Source: BBC News website

In Ealing London, Barbara Mulligan found a micro moth in her moth trap which she couldn't identify. She sent the specimen to the Natural History Museum (NHM) who confirmed it as a *Tachystola* species but unlike any of the known specimens already recorded.

She has spent a lifetime breeding and recording moths and to her delight, it was declared a new species and was given her name. Most lepidopterists will be envious of her finding the *Tachstola mulliganae* in Walpole Park Ealing.

The NHM noted that one unnamed Australian species of *Tachstola* in their collection was a match. The 130+ year old specimen was found in Walpole district (Australia)! More than a coincidence perhaps? Maybe Walpole Park was inspired by its Australian counterpart and plants imported bringiing the moths with them?

It is also interesting to note that *T. acroxantha* is a native Australian species that was recorded in the NHM garden in 1998 (*source: Wikipedia*). It was discovered feeding on London plane trees not its' usual foodplant. In New Zealand it is regarded as an invasive species.

Mulligan also found other specimens in parks and spaces around Ealing. We are all very happy for her.

Suffolk Wall Brown Summary (2023)

By Robert Quadling

Wall Brown – *Pararge aegeria*

1st Generation: All information covers VC25 & VC26 for Suffolk

First Wall Brown was reported on the 1st May at Blundeston single sighting

other reports were from, SWT Lound Lakes 9, Somerleyton Estate 9,

Somerleyton Station 2, Somerleyton Marshes 2, Herringfleet 1, Blundeston 2, Corton 1, Beccles 1, SWT Oulton Marshes 2, SWT Castle Marshes 3, mid-way between Carlton Marshes Sluice and Castle Marshes along Angles Way footpath next to river Waveney 2, Orford Churchyard 2.

At SWT Carlton Marshes this year, Wall were first seen on the 18th May, 12 days later then first seen in 2022. Total recorded 24, looking at a 6-year average from 2017 to 2022 we should at least record 19 to maintain a stable population.

2nd Generation: First Wall Brown was reported on the 10th July at RSPB Hollesley

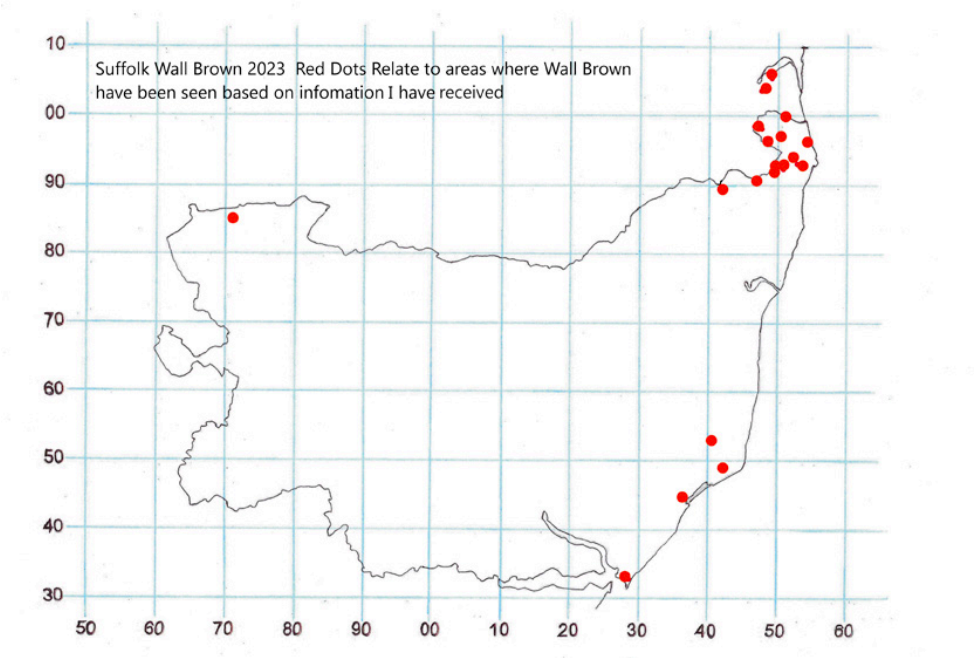
Marshes single sighting, other reports were from, Breydon 22, Burgh Castle 1, SWT Lound Lakes 3, Herringfleet 1, Somerleyton Ashby footpath 4, Somerleyton Brickfields 1, Somerleyton Churchyard 4, Somerleyton area 8, Blundeston 3, Blundeston Marshes 1, SWT Oulton Marshes 4, Camps Heath 1, Beccles Allotments 1, Lowestoft Cemetery 1, Oulton Broad (N) 2 garden sightings, Lowestoft (N) 1 garden sighting, SWT Castle Marshes 1, Sudbourne Churchyard 3. SWT Carlton Marshes 45, looking at a 6-year average from 2017 to

2022 we should at least record 39 to maintain stable population.

3rd Generation: First Wall Brown, a single sighting, was reported on the 14th September at RSPB Lakenheath Fen other reports were from, Burgh Castle (Breydon water footpath) 1, SWT Lound Lakes 2, Somerleyton Estate 1,

Somerleyton area 8 garden sightings, Blundeston Marshes 1, Aldeburgh Churchyard 1, Landguard 1, RSPB Lakenheath Fen 1. SWT Carlton Marshes 6, disregarding the high count of 50 in 2022 and only taken a 5-year average from 2017 to 2021 we should record normally at least 4 to 5 each year if we add in 2022 for a 6 year average this figure becomes 12.

Outlook: North east Suffolk Wall Brown are still holding on with the largest concentration in Suffolk and SWT Carlton Marshes is maintaining a steady population with a steady increase in numbers from 2020 to 2022 with only a very small drop off in 1st Gen and 2nd Gen numbers for 2023. South east Suffolk had 4 areas Sudbourne, Orford, Hollesley, and Landguard. West Suffolk only had the one sighting at Lakenheath Fen (see map). It would be great if these areas in 2024 have increased numbers of Wall Brown with the hope of them re-colonizing.



Hummingbird Hawkmoth at Sizewell

Debbie Broom

I was enjoying a walk at Sizewell on a lovely sunny day towards the end of August last year along the top of the dunes when, by chance, I saw a Hummingbird Hawkmoth enjoying the nectar from the flowers. As I hadn't seen many during the summer, I stood and watched. I continued my walk and then noticed something moving on the ground. When I looked closer, I saw it was a caterpillar but not one I instantly recognised.

I took some photos (one shown below) and later looked in the *Field Guide to the Caterpillars of Great Britain and Ireland* and saw that I'd found a brown version of a Hummingbird Hawkmoth. There was quite a lot of Lady's Bedstraw and other plants nearby. In the space of a few minutes, I'd seen the moth flying and also the caterpillar! I couldn't believe my luck and consider myself very fortunate to have seen these two stages of the moth's life in such a short period of time. Just one of the wonders of nature to be found at Sizewell - always a good place for a walk as there is so much to see, and I always come away having seen something. Let us hope that Sizewell can continue to be a home for all the wildlife that lives there. However, having gone there for a walk last October and seen the devastation taking place in respect of Sizewell C, I wonder what the future holds for this wonderful area on the Suffolk coast, which I for one, have much pleasure visiting to look for wildlife.

Introducing Australian Butterflies – a Personal Perspective

Graham Jackson

Not planning on visiting Australia? 'No worries'; just as long as you can access the internet. Although the country is renowned for its many iconic species, what about its butterflies? Firstly, it is a big country; Great Britain's land area is less than 3% of Australia's. Why Australian butterflies? My wife and I first visited in 2001 when our daughter set up home in New South Wales (NSW). Over a dozen visits followed pre-Covid. Incidentally, if you fly via Singapore's Changi airport, and have time, then do visit the butterfly garden there [appended link: 1].

So far, we have visited the States of NSW, Queensland (Q), Victoria, South Australia (SA), and Tasmania – but not yet Western Australia (WA) – as well as the Northern Territory (NT) and the Australian Capital Territory (ACT) [2]. Our visits have included many other activities and interests such as visiting family and friends, sightseeing, and scuba diving. Hence butterflies were often noted but not specifically studied. This changed during our trips in March/April 2020 and December/January 2022/2023. The former due to Covid lockdown, the latter for a more relaxed time with the family. Consequently, observations on butterflies became more focused, particularly locally at our daughter's home in South West Rocks (SWR) [3] [4] [5]. The town, on the east coast at about 31°S, is generally considered within the sub-tropical zone. Whereas Australia extends between about 10° and 43°S with a consequent greater diversity of climate and habitats.

Over 400 butterfly species are recorded from Australia. About half are endemic 'not found elsewhere in the world'. Michael Bradby's 'The Complete Field Guide to Butterflies of Australia' (2nd edition, 2016) is available [6], and the 1st edition (2004), is downloadable [7]. The 'Atlas of Living Australia' [8] provides access to Australian biodiversity data - including butterflies - covering descriptions, images, records, distribution maps, and more. Other sources include [9]; while 'A Naturalist's Guide to the Butterflies of Australia' (2020) by Peter Rowland and Rachel Whitlock (John Beaufoy Publishing) - reviewed by Guy Padfield [10] - covers 280 most commonly seen butterfly species. Species lists with photographs are also available online [11]. The same six Families are represented as here in Britain. They include a single species of Riodinidae, the Harlequin Metalmark *Praetaxila segecia (Hewitson, 1861),* to match 'our' Duke of Burgundy *Hamearis lucina* (Linnaeus, 1758).

It is no surprise that the Australian *Pieridae* includes the infamous Small Cabbage White, *Pieris rapae* (Linnaeus, 1758) which was reportedly introduced accidentally from New Zealand [12]. The first recorded sighting was in 1929 at Melbourne, and subsequently it became widespread including at SWR where I occasionally noted it. Be aware that the 'whites and yellows' include more flamboyant examples than our British species would suggest, such as the Red-spotted Jezebel *Delias aganippe* (Donovan, 1805) [13] [14].

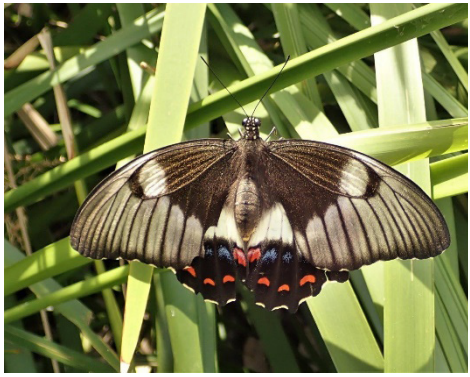
For me a particularly notable 'white' species was the Caper White, *Belenois java* (Sparrman, 1768/Linnaeus, 1768) [15] which

I spotted in small groups on many days of our 2020 visit.

Caper White - Belenois java

The species occurs in Asia and throughout Australia but most frequently west of the Great Dividing Range where the caterpillars' foodplants of caper shrubs and creepers (family *Capparaceae*) grow more commonly. During their migrations they are sometimes blown off course eastward of the Range towards the coast, including to SWR. There are reports of huge numbers of adults even to the extent of clogging car radiators resulting in overheated engines. A series of photographs by Helen Wilmore of the metamorphosis of the species is presented at [16]. Apparently 2020 was also a good year to see swarms of the species in the Adelaide area in SA and beyond. Adelaide is very roughly 1770kms (1100 miles) from SWR.

The one species of the Australian *Papilionidae* I sighted at SWR during our last visit was the Orchard or Citrus Swallowtail *Papilio aegeus* (Donovan, 1805) [17] [18]. Despite a few citrus trees in the garden nearly all sightings, though frequent, were of individuals flying rapidly through. Eventually I photographed one resting on a shrub.



Citrus swallowtail female Papilio aegeus

The species can become a pest for citrus farmers – a far cry from our own swallowtail *P. machaon britannicus* (Seitz, 1907) [19]. Be aware however, that the Norfolk swallowtail *P. amynthor amphiaraus* (C. & R. Felder, 1864) is found on Australia's Norfolk Island [20] which is roughly 1500 km (900 miles) eastward of SWR. The larvae feed on the leaves of the yellow wood (*Zanthoxylum pinnatum*) and introduced lemon trees (*Citrus limon*) [21] [22] [23].

The other non-continental swallowtail of the 20 listed Australian species is the Christmas swallowtail *P. memnon* (Linnaeus, 1758) a native of Australia's Christmas Island which lies to the south of Singapore, and roughly 1500 km northwest from the Australian mainland [24]. The swallowtail family [25] includes some of the largest butterflies in the world; one of which is Australia's largest endemic species: the Cairns Birdwing, *Ornithoptera euphorion* (Gray, 1853) that can reach 15cm wingspan. The country's largest non-endemic species is the related New Guinea or Common Green or Priam's Birdwing *O. priamus* (Linnaeus, 1758) that has a wingspan up to 19cm.

The family *Nymphalidae* has over 80 species in Australia. One, in the subfamily *Danainae*, is the Wanderer *Danaus plexippus* (Linnaeus, 1758) [26], or more widely known as the Monarch or Milkweed renowned for its spectacular migrations in North America and occasionally to Britain. Opinions vary on whether it was an established or an introduced species or something more complex [27]. The article also mentions the Wanderer as a potential pest. See also [28] [29]. I spotted

one on a family outing to Heron's Creek some 100km south of SWR during 2019.

Monarch Herons Creek NSW

Another notable mass migrating member of the *Danainae* is the Dark or Blue Tiger butterfly, *Tirumala hamata* (MacLeay, [1826]) [30]. My daughter visited Queensland's Magnetic Island in July this year and witnessed the largest migration of the Blue Tiger to the island since 2015 [31, includes a video] [32]. However, habitat degradation from bush fires and weed overgrowth remain a cause of concern for the future of the species.

An Australian butterfly in the subfamily *Nymphalinae* is one of 'our' immigrant species, the Painted Lady *Vanessa cardui* (Linnaeus, 1758) [33]. It is recognised as the most widespread species in the world – though not recorded in Antarctica; nor in South America where another five 'painted lady' species occur [34]. Two more 'painted lady' species occur in North America. In Australia, *V. cardui* has a limited range in WA around the Perth area and on Rottnest Island. However, its close relative, the Australian Painted Lady *V. kershawi* (McCoy, 1868) ranges over half the continent. These two species have not always been accepted as separate [35]. All these 'painted ladies' are in the Cardui group as depicted in figure 2 in Abbasi R and Marcus JM (2015) "Colour pattern homology and evolution in *Vanessa* butterflies (Nymphalidae: Nymphalini): eyespot characters". J. of Evolutionary Biology **28**: 2009-2026 [36].

Another Australian *Nymphalinae* sighting was the Meadow Argus *Junonia villida* (Fabricius, 1787), which occasionally settled on the lawn at SWR. It is a species with highly distinctive eyespots on the wings which are deployed in various ways as a defence mechanism depending on circumstances [37] [38]. It is particularly common in Australia [39] and elsewhere. It was reportedly captured once in Britain in the early 1700s and named Albin's Hampstead Eye [40] [41] [42].

The Common Brown *Heteronympha merope* (Fabricius, 1775) within the subfamily *Satyrinae* [43] is noteworthy for providing "*evidence for phenological shifts …. in response to regional warming in the Australian city of Melbourne. The mean emergence date for H. merope has shifted minus 1.5 days per decade over a 65-year period and is linked with a concurrent increase in local air temperatures of approximately 0.16°C per decade*", Kearney MR and others; published 17 March 2010, Royal Society Biological Letters Abstract: Early emergence in a butterfly causally linked to anthropogenic warming [44].

Dart Skipper

Over 120 listed Australian species occur within the *Hesperiidae* family – the Skippers, though

often called Darts or Darters in Australia. Identification is a real challenge [45]. I have spotted two species; one in the garden a few times at SWR nearby in Arakoon National Park on the Monument Hill walk from Little Bay [46]. Attempting to identify them I noted cautionary comments by Martin Purvis on several pages of his website; for example [47] "*.... many other Telicota spp. are so similar it's difficult to be sure what you're looking at*". My own very tentative identification for the Arakoon one is the White-banded Grass-dart, *Taractrocera papyria papyria* (Boisduval, [1832]) [48] [49] but I have little confidence in this as I only managed the one photograph. I will leave the garden species unidentified since one candidate – the Common Dart or Narrow-brand Grass-dart, *Ocybadistes flavovittatus* [*flavovittatus*] (Latreille, [1824]) – is, according to Martin Purvis, "*.... very similar to O. walkeri, making them difficult to distinguish in the field and in photos. From what I've heard collectors find it hard to identify them from set specimens as well.*" [50].

However, the largest number of Australian species – over 140 – are in the family Lycaenidae posing their own identification challenges. Common names, such as that of the hairstreak Purple Copper *Paralucia spinifera* (Edwards & Common, 1978), add to the potential confusion. The myrmecophilous associations of the family are well known but one Australian genus *Acrodipsas* of six species is referred to as the 'ant-blues'. An example of an association of a 'blue' butterfly with ants is described in a downloadable pdf [51].

One of the 'blue' species I recognized at SWR last Christmas, the Common Grass-blue *Zizina otis labradus*, (Godart, [1824]), was particularly common.

Common Grass-Blue - Zizina otis labradus

Indeed, it is considered one of the most common species in Australasia including New Zealand [52]. Issues to be aware of result from the revised classification of the former species *Z. otis* (Fabricius, 1787) and *Z. labradus* (Godart, [1824]) together with the use of common names 'lesser grass blue', 'common grass blue', and 'clover blue'. These common names are indeed appropriate, but they do further confuse which species is referred to. I conclude that the current terminology of *Z. otis labradus*, (Godart, [1824]) is the appropriate one for Australian specimens as the former *Z. labradus* is now this subspecies. Hence care is required in researching this delightful blue butterfly online. Another consequence is that records of sightings occur for both the binomial and the trinomial designations: *Z. otis* (Fabricius, 1787) [53], and *Z. otis labradus* (Godart, [1824]) [54].

I noticed this 'blue' in large numbers occurring on many grassy areas especially where clovers are also present. They rarely flew far above the ground and often a dozen or so fluttered, fed on flower nectar, and mated in an area of just a few square metres. Exposed mown lawns, untidy edges of grass and clover clumps, grassy expanses above the seashore, road verges, and farm grassland whether grazed by livestock or kept shorter as an aircraft landing strip;

all seemed favoured. It was wetter than usual before last Christmas and this species seemed unfazed whether in gentle rain or full sunshine. Reportedly, a too brief duration of rainfall in more arid areas can result in restricted larval growth and undersized adults. Particularly notable is the pale violet blue of the males' wings that appear to shimmer with changing light. Like some other blues the females often have variably browner wings with some degree of blue at the wing bases. Given that Christmas occurs during the summer holidays in Australasia and that SWR is a popular tourist destination I did wonder how many visitors, and indeed locals, even noticed this engaging blue butterfly with its wingspan of under 30mm. I doubt many did as it is surprisingly easy to overlook. For the record a tailed blue, maybe the Speckled Line-blue *Catopyrops florinda* (Butler, 1877), appeared occasionally during both recent visits to SWR.

Common Grass-Blue - Zizina otis labradus

Additional and particularly useful websites that cover Australian butterflies include [55] and that of Martin Purvis [56] which has an extensive Photo Gallery and much more including links to other butterfly websites; the first listed [57] is the legacy website of Geoff Walker's butterfly photographs: well worth viewing. Another site authored by Don Herbison-Evans and Stella Crossley at [58] is on behalf of the Coffs Harbour Butterfly House [59]. A tour through these websites provides a wealth of images and information on Australia's butterflies spectacularly further than my introduction here.

There are links to Australian regional butterfly websites too, and additionally to Australia's citizen science platform 'naturemapr' [60]. At the latter click on the 'Choose a region' tab to select specific regional localities. One option for SA is the region 'Kangaroo Island' which we visited on an earlier trip. This is complemented by other sites [61] [62]. Tasmania is another regional option; the island is located south of the Australian mainland, separated from Victoria by the 240 km (150 miles) wide Bass Strait. Although Tasmania shares most of its fauna with the mainland, its isolation along with its wetter, cooler and cloudier weather resulted in the evolution of several endemic species and subspecies, including some of its 39 listed butterflies [63].

SWR is found on 'naturemapr' [60] via the tab for the North Coast region of NSW. Regions further north in Queensland are 'Southeast Q' (see also [64]) and 'Far North Q' where the climate becomes ever more tropical in marked contrast to that of Tasmania. Thus, the Australian Butterfly Sanctuary at Kuranda has flight aviaries and exhibits of native tropical species, including the previously mentioned Cairn's Birdwing [65]. An atlas of Butterflies and Diurnal Moths in the Monsoon Tropics of Northern Australia is downloadable as a pdf [66].

In 2019 a new citizen science project was launched promoting butterfly recording in Australia [67]. A 2021 review on this project for monitoring changes in the distribution and abundance of butterflies is available [68]. In

2022 'Butterflies Australia' became a flagship project of Moths and Butterflies Australasia Inc (MABA) [69].

While preparing this article I noted that Carl Linnaeus (1707-1778) [70] [71] and other early taxonomic authorities were often cited for Australian butterflies. For many species listed [11] there is a facility to raise dialogue summary boxes by hovering the mouse pointer over any blue coloured 'binomial/trinomial name' or 'notes and references' number. From these, the available pages for the species and the taxonomic authorities are reachable. For example, within the "Danainae: milkweed butterflies" is listed the "Blue tiger, *Tirumala hamata* (W. S. Macleay, 1826) [12]" which allows various links including one on W. S. Macleay [72].

From this link I discovered that William Sharp Macleay's (1792-1865) main interest, outside his working life as a Civil Servant, was natural history; one he shared with his father and other family members. William knew naturalists including Charles Darwin and, while working in Paris, Georges Cuvier. He retired and emigrated to Australia in 1839. His father was Alexander Macleay (1767-1848) a Scottish-born scientist and colonial secretary of NSW [73]. The Macleay River, which rises in the Great Dividing Range and flows 298 km (185 miles) before entering the Tasman Sea close to SWR, was named in honour of Alexander [74].

Large numbers of *Z. otis labradus* (Godart, [1824]), previously introduced, were sighted on a friends' farm at a Christmastide barbecue adjacent to the River Macleay near SWR. The species *Z. otis* (Fabricius, 1787) is not endemic to Australia since it also occurs through much of South and South-east Asia. Johan Christian Fabricius (1745-1808) – a student of Carl Linnaeus – became an important entomologist of the 18th century establishing the basis for today's system of insect classification. He also foresaw that butterfly male genitalia would provide useful characters for butterfly taxonomy even though he did not apply this insight himself. More detail is at [75] but, as a professor initially at the University of Copenhagen and later at Kiel, Fabricius repeatedly travelled to study the collections of British collectors, such as Joseph Banks. Banks was appointed to the scientific expedition on Captain James Cook's first voyage of discovery in the South Pacific on HMS Endeavor (1768-1771) [76]. During the trip they journeyed off the east coast of Australia, where Cook mapped the coastline [77]. On 13th May 1770 James Cook sighted and named Smooky [Smoky] Cape just south of today's SWR [78]. He noted in his journal: "*... a point or headland on which were fires that caused a great quantity of smook which occasioned my giving it the name of Smooky Cape, …*": [79]. In some ways the world is a smaller place than journey times convey as there is an ongoing web of investigations going back centuries much of which we have access to through today's World Wide Web. However, just as with "travellers' tales" of old, the Web's information requires careful scrutiny for authenticity.

To end with, there is an old Arabic folktale [80] that tells how a man standing one night by a river is bored and starts throwing pebbles into the water. Just as dawn breaks, he picks up the last pebble and, as he throws it, he briefly looks at it. As it flies through the air, he realises that it is a jewel. A bag of jewels had been spilt on the riverbank, and through ignorance he had thrown them all away. Is this prophetic of how the human species are destroying the habitats of butterflies and much else?

(*All photos by Graham Jackson)*

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Dedicated to Trudie Willis