



Butterfly Conservation

Saving butterflies, moths and our environment

Small Blue Survey 2016

Berwickshire and North Northumberland



Compiled by Iain Cowe, photographs by Iain Cowe unless otherwise stated.

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The story so far..

It has now been a decade since the Small Blue was rediscovered on the Berwickshire coast, and in that time the Butterfly has held on to its core site at Catcairn and expanded without contraction both north and south, though predominantly north, along the coastal strip with one very odd anomaly occurring with the discovery of an inland colony of some five miles west at the only suitable site around that provides shelter and foodplant.

In this past decade there are more recorders out there on the coast looking for the Butterfly, and results of that have been encouraging. The habitats of the Butterfly are not under any great threat as the coastal strip still boasts swathes of the food plant Kidney Vetch, and there is still huge amounts of viable territory both north and south where the species can further expand.

Below is a rough distribution map as things currently stand to 2016.



The Clans

The main colonies I decided years ago now to name Clans for whatever reason. The core Clans are at Catcairn NT9659, and Kings Gardens NT9561, with a new Clan emerging strongly now at Blaikie Heugh NT9562. The smaller Clans are the pioneers to the south and north. The southern sub Clan at Hilton Bay and the northern sub Clan at Daring NT9563 that now feed a further expansion north along the coast towards Eyemouth. Evidence of the Small Blue tracking north is and has been limited. Barry Prater discovered at least 2 Small Blue adults as far as Eyemouth Bay back in 2010 and despite annual searches of the area since we have been unable to relocate them. Single Butterflies have been seen around the Golf Course at Daring with proof of breeding, but no sign of solid evidence that they were expanding in any numbers until this summer when Jim Montana contacted me of a sighting at the exact same spot Barry Prater had reported a single last year at Agate Point. On July 1st Jim reported four, possibly five Small Blue, suggesting perhaps, the embryo of a new Clan emerging. A search for eggs nearby was unsuccessful, but next year may reveal more.

Agate Point Small Blue, courtesy of Jim Montana



Cross border incursions

No matter how exciting it would be to find Small Blue across the border into North Northumberland, and no matter how hard we have tried to find evidence...the wait goes on. From Marshall Meadows south to Berwick was and has been surveyed frequently enough to suggest a colonisation has not yet occurred. My very many thanks to volunteer Small Blue hunters Danny and Emma Spring who took up the challenge several times along the Berwick coast this summer without reward, though they did record some interesting patches of Kidney Vetch that need close inspection next year. I had only the one sweep from the Golf course up to Marshall Meadows and quickly realised that the grassland along this stretch is in severe trouble as far as flowering plants are concerned. Amazingly I found that an area that boasted a large colony of Kidney Vetch had been ploughed over...quite why I am not sure. There were several areas that once held the plant along the coastal grassland laid waste by machine cutter and disc...perhaps an attempt to rejuvenate the grassland...though the areas worked were being kept under control by a quite aggressive Yellow Rattle colony anyway...so. There is despite these problems still enough of the plant to sucker a Small Blue expansion.

Marshall Meadows Bay, perhaps the undercliffs here could support the food plant



2016 and adverse weather

2016 saw yet another flight season marred by very poor weather resulting in yet another very late and prolonged flight period. Small Blue emerged roughly mid-May as per normal, and that flight season extended through to the incredibly late date of July 26th...yes that's right...July 26th!! Cool east winds through June did not abate, bringing onshore Haars and cold showers with temperatures struggling to get into double figures at times. The Small Blue in context did not suffer quite as much as the Northern Brown Argus, and seemed to adapt quite well throughout this period with bursts of emergence across all sites when weather windows opened. No second brood Butterflies were recorded this season though I expect the Butterflies flying so late would have pushed that possibility beyond normal into September...it's possible...but unlikely.

A cold grey Haar sets in during the Butterfly walk held from Eyemouth on the 11th of June

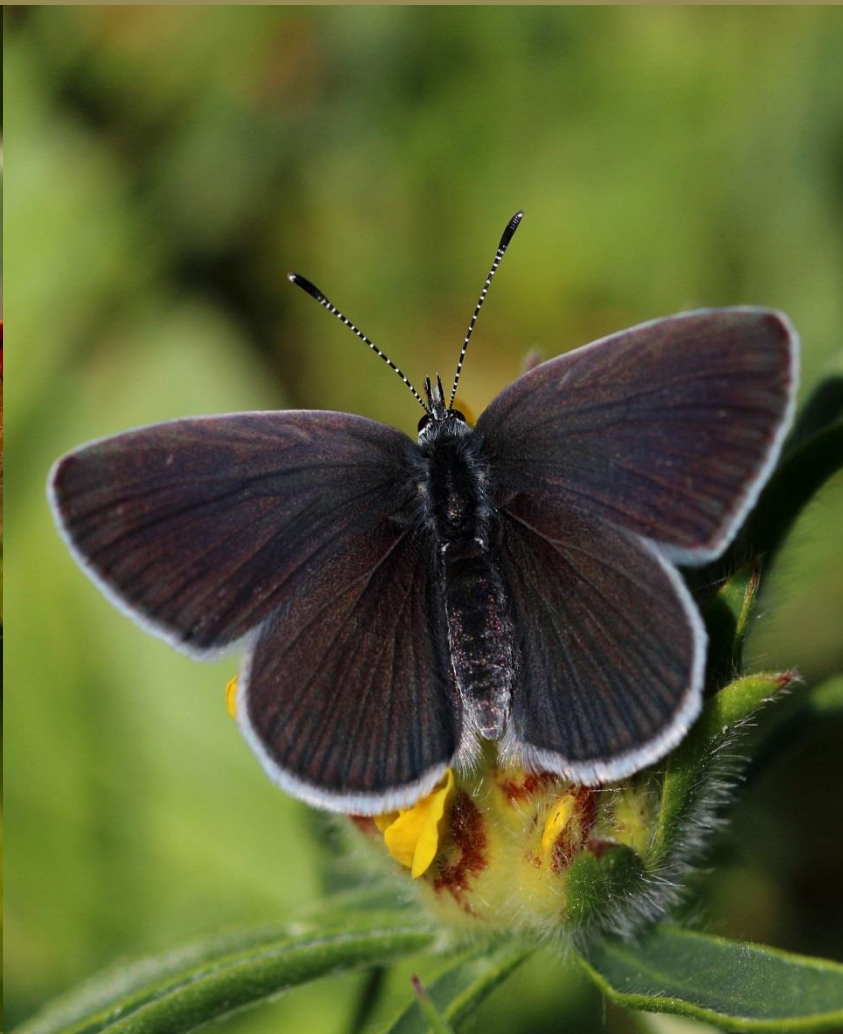
Photo courtesy of Barbara Prater



Causewaybank

This inland site of some 5 miles from the nearest coastal colonies is still a bit of a puzzle as to how they came to be there...but I am past wondering, and just enjoying this colony and its progress. I visited at the end of May, twice in June and then again in July. My best day was the 7th of June when I counted 12 adults of varying sizes. There were some very large females and some incredibly small males. Breeding and egg laying was witnessed and later in July larvae were found as well. So all is good. This is a reasonably private site, and I don't encourage anyone to just turn up for a visit without at least contacting me first. As I have said in previous reports, the farmer is tolerant and friendly, and there seems no reason not to act respectfully when it comes to gaining access.

Larvae and female from Causewaybank 2016



Ant relationships within Small Blue colonies

I have always been chasing this possibility since first witnessing it back in 2011. This year I was so lucky to witness it again. On the 12th of July whilst scrambling around on the sheer scree above Catcairn checking KV heads for larvae I finally found one. I was pretty chuffed to have found one and teased a few stray leaves away in order to get a photograph. I took one photo before a single Ant appeared, then another and another. I kept photographing the behaviour of the Ants as they scrambled around the larvae, and then fanned out around the plant as if looking for an intruder. Satisfied they had seen off the unseen assailant they returned to the larvae and each one gently tickled the larvae with their antennae and appeared to be receiving their reward for their efforts. So what was I witnessing?

Referring to the Species Action Plan for Small Blue written in 2000 it reads:

Both larvae and pupae have structures that attract ants and in continental Europe are usually tended by ants throughout their development. However, detailed observations in Britain have rarely found ants in attendance (Coultard, 1982; Morton, 1985), possibly because few native ant species forage high up in the flower-heads. There have been very few observations of the overwintering larvae and pupae but these are possibly attended by ants.

N. A. D. Bourn and M. S. Warren



A few photos of the Ants in attendance at Catcairn July 12th 2016

So, this would appear to be a rarely captured occurrence rather than a rare occurrence in my view. The species of Ant here has been confirmed as a member of the Formica family either the *Formica fusca*, which is quite scarce locally or the more likely *Formica lemani*. Any further help in identifying the Ant would be most welcome.

Below is another I photographed in 2011



The Stonechat



The Stonechats are insect predators and are always in close attendance when I am searching for Small Blue as if they know I am going to flush insects out into the open for them to Hoover up. The Chats are mostly unsuccessful though preferring the hordes of St Marks Fly that emerge at that time of year. The Chats make sure that I don't get too close to the nest site and often escort me away noisily. It's great to see so many pairs just now.

Poetry Corner

Cupido minimus

*As Haar sweeps in thick upon the coast
The smallest creatures push through
Encrusted scales of shimmering blue
Adorned with pearls of saline dew
Cupido minimus tougher than most
The seas breath lifts and swirls retreating
Rays of sunshine's heart starts beating
With eyes of pitch, antennae twitches
Takes flight among the grasslands riches
Vetches, plum and yellow hues
Are visited by Little Blue
The Chats and Arachnids snatch and trap
Weaving, darting, scuttle, snap!
Cupido minimus escapes with ease
On gentle purring summer breeze*

Iain Cowe 2016



Butterfly Walk June 11th

The weather conditions during this Butterfly walk up the coast from Eyemouth on the 11th were fairly atrocious with little visibility and cold east winds, yet, a fair number showed up. Among other natural highlights to find I had hoped that we would discover some Small Blue. We certainly did that, eventually. Sitting quietly among the grasses were some very sodden little creatures that we were able to gather gently for all to see. So, a lesson perhaps that even on the worst of day's things can be found with patience and endurance.

My thanks to all those on the day who had that patience and endurance.

Photo courtesy of Barbara Prater



A nice wee discovery

As mentioned earlier, Danny and Emma Spring have had a few excursions south of the border in pursuit of a first Northumberland Small Blue. They have also made a few forays north of the border, and I was very glad to hear from them on the 30th of June with a sighting of a single Small Blue near the Golf course at Eyemouth close to Whalt Point. This sighting tied in very well with a general expansion along the coastal path

Photo courtesy of Danny Spring



A General Summary of 2016

Small Blue were found at all sites bar Partanhall. This however was expected due to lack of foodplant at the site. There were far fewer sightings of Small Blue at Kings Gardens with a good few visits resulting in blanks. Catcairn and the adjacent coastal path sections south to Hilton Bay did very well with at times high numbers. The Blaikie Heugh site was pretty threadbare until later in the season when higher numbers began to appear once the weather had turned for the better. I was unable to find much at Daring to the north though I did bump into this female photographed below.



There were approximately 240 Small Blue adults recorded bearing in mind possible records still to appear. That is quite a high number and above average considering conditions. The Small Blue appeared on the 15th of May at Catcairn Bushes. 26 were recorded on the 23rd of May in the Catcairn vicinity. There were 12 at Causewaybank on the 7th of June. 16 at Blaikie Heugh on the 9th of June. 31 recorded on the 22nd June at Catcairn. On the 28th of June a good 27 were recorded at Blaikie Heugh. Now into July, surprisingly, 17 recorded at Catcairn. Jim Montana had 5 at Agate Point on the same day. A single was seen at Kings Gardens on the 3rd of July. A further 10 recorded at Blaikie Heugh on the 8th of July. A gap of a few weeks then occurs before further sightings in the latter half of July to my great astonishment on the 26th of July 3 at Blaikie Heugh.



A decade of changes

I suppose I can make some comment about how things have changed throughout the decade with sites I am at least familiar with. No changes have yet affected the Small Blue, though, eventually they will. If I can take the Catcairn Bushes scree slope for example, the main problem has been the slow strangulation of the open sheltered areas by Bramble and Gorse. More recently Rabbits have made absolute mincemeat of the Kidney Vetch stripping away any growth very quickly and starving early Small Blue from finding decent heads for egg laying purposes. These problems are not quite the same next door on the coastal path section where we have a grazing problem of a different kind. The coastal strip south to Lamberton has been regularly grazed by Sheep, but those Sheep are now posted missing and things have been on the slide with much ranker grass, a spread of Bracken and a tendency that Gorse will spread as well given time. Some advantages to the cessation of grazing has been brief with a wealth of wild flowers growing now unhindered...but that won't last without some disturbance of the ground and grazing. The nearby Railway cut still enjoys a reasonably decent habitat and Bramble that grows profusely is periodically cut as part of railway maintenance. In general at other sites, grassland management is non-existent and ranker grasses are smothering the best of the flowering herbs. The coastal strips only chance is erosion..without grazers... and erosion is rife along most of the coastline bar the railway sections which have been in places reinforced to prevent landslips.

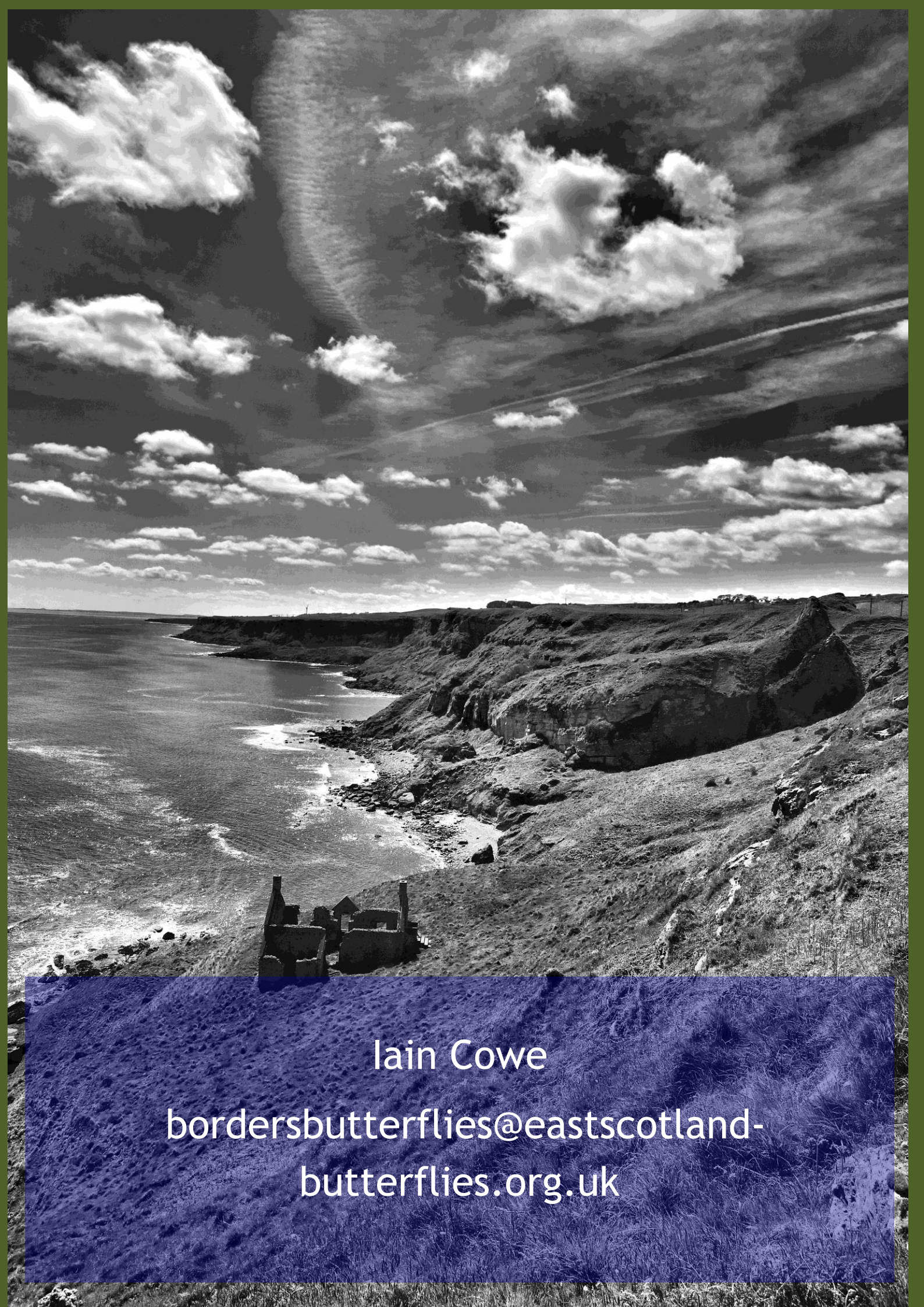
So that all sounds like bad news I guess. Good news then, Kidney Vetch continues to be a widespread coastal plant with some magnificent blooms occurring these past few years around Eyemouth especially. Lots of scope for expansion yet.

Plans for 2017



Not too many radical plans away from continuing to survey old ground and new. It would be a good thing to have some opinion from other Small Blue groups around Scotland going forward in perhaps a Facebook format...but just an idea. Walks and talks are more than likely to be on the agenda with an emphasis on highlighting not only the Small Blue Butterfly, but the many other species of not just Butterfly and Moth that inhabit these still wild coastal habitats of Berwickshire and North Northumberland. The Flowering plants and animals that reside here also are quite unique and really do merit some attention. A Wildflower walk has been talked about...and that will happen I think.

I will end by thanking Jim Montana for all his hard work with his camera...he misses nothing. Ian Campbell for his fine efforts along the Burnmouth shore and Partanhall, and Danny and Emma Spring a new dynamic duo who have had success with that Small Blue sighting this year and hopefully more to come. And everyone else who supported our walks and surveys as best they could. It is inspiring to see and hear about others enjoying our great natural heritage.



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