

Field Craft Lesson 4: How To Find Dingy Skipper Eggs

By Mike Slater

Conservation and Historical Background

The Dingy Skipper (*Erynnis tages*) has declined dramatically since the 1950's. The recent decline in Warwickshire could be as high as 61%. The uncertainty in knowing exactly what the decline is is due to the fact that several sites in Warwickshire require further survey work to prove that breeding colonies still exist. Nationally the butterfly has declined by 49%. Whole meta-populations in Warwickshire (landscape collections of interconnected colonies), such as that at Long Marston/Honeybourne may now be extinct. Others, such as the Great Central Railway meta-population are severely threatened and all six previously known colony sites may now be extinct.

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Unfortunately the Dingy Skipper is still rapidly declining. Some of the recent decline has been due to habitat deterioration through shrub encroachment such as at the now extinct sites at Navigation Cutting. However, by far and away the most severe cause for these recent losses is the development of brownfield sites for housing and other commercial developments. Most of these brownfield site losses have been in the

north of the county. Many more sites are still under threat, some due to inappropriate tree planting as at the Fleabane site at Kineton Army Base and Coombe Farm Embankment. The continued and rapid decline nationally is viewed to be so serious that the Dingy Skipper is now a candidate species for the Government Biodiversity Priority Action Plan process (BAP). The good news is that if the Dingy Skipper becomes a BAP species it should receive greater protection which should mean that positive action is taken to preserve existing colonies and at least halt, if not reverse, its decline. To be able to conserve the Dingy Skipper we first need to know where all of the colonies are and where future ones could be if favourable habitat is created. On some sites only individual adult Dingy Skippers are seen, therefore, we need to confirm that these sites contain breeding colonies rather than just vagrant individuals passing through. For detailed conservation action to take place it is important to identify on what part of the site the Dingy Skipper breeds. Once this is known the breeding areas can be preserved and hopefully expanded by appropriate management or habitat creation.

Nationally, Dingy Skipper colonies are found in a wide variety of habitats such as on chalk and limestone downs, along wide sunny woodland rides and clearings, in coastal areas especially dune habitats, on heaths, on other unimproved grassland sites and on brownfield sites. In Warwickshire only the Lighthorne Heath colony can be described as being on agricultural land. All our woodland colonies are now extinct despite this once being its primary habitat in Warwickshire. The remaining 30 to 40 colonies found in Warwickshire are now all found on brownfield sites, disused railways, army bases, roadside verges, old coal pits and both active or disused quarries.



The Dingy Skipper larval foodplants in Warwickshire are Bird's-foot trefoil (*Lotus corniculatus*) and Greater Bird's-foot trefoil (*Lotus pedunculatus*). Bird's-foot trefoil can rapidly colonise brownfield sites. In more recent years Bird's-foot trefoil has been used in wildflower seed mixes to seed along roadside verges e.g. the M40 and in amenity grasslands. The M40 is a potential area for new Dingy Skipper colonies. These recent improvements, though helping, will not replace all the wildflower meadows and brownfield sites we have lost recently. Despite losses, the Dingy Skipper's foodplants are still widespread and relatively common therefore you would think that this species would be easy to conserve. Unfortunately like most of our rarer species the Dingy Skipper is very selective in where it lays its eggs. For conservation purposes it is therefore important to both locate the areas used for egg laying and where possible, increase the areas of foodplant suitable for egg laying.

Initial Experience of Searching for Dingy Skipper Eggs

My previous experience of looking for Dingy Skipper eggs is very limited. The only previous time that I have seen Dingy Skipper eggs was many years ago, during a long weekend field trip to the Isle of Wight. We all know that the weather can never be guaranteed on field trips and so it was with this field trip. During a spell of bad weather I decided to occupy my time by searching for Dingy Skipper eggs. After half an hour searching I managed to find two eggs close together. Both these eggs were on Horseshoe Vetch growing over the bare rock of a cliff face. The sun then came out so I joined the rest of the party looking for adult butterflies.

This year I wanted to improve my field craft skills so I decided to have a serious attempt at finding Dingy Skipper eggs at the newly opened Ryton Wood Meadows Butterfly Conservation Nature Reserve. Though there is now a good population of Dingy Skipper I wanted to increase the population further to such a size that it would increase the potential for other nearby sites to be colonised. Larger colonies create a greater chance of individuals leaving a site to colonise nearby habitat especially if that habitat is large. To this end we are liaising with Hanson Aggregates to create habitat for the Dingy Skipper at Bubbenhall. Though I have increased the amount of Dingy Skipper larval foodplant at Ryton Wood Meadows considerably over recent years and also the population size, I still needed to find out what the optimum breeding habitat was. My first thought was to follow a female Dingy Skipper and watch where she laid her eggs. I have done this with several other butterfly species and generally have not found it too difficult.

On this day I found following the Dingy Skippers really difficult and frustrating. Firstly, I was not always sure I was following a female. You can distinguish males from females by looking for the faint black line that runs out away from the body on both forewings on the male Dingy Skipper. However, because this was a very hot day and the butterflies were very active it proved to be difficult to distinguish this line with the naked eye. This, by the way, is the similar line to those found on other butterflies such as the Large Skipper. The line contains the androconical scales that produce the sexual attractant "pheromones" for attracting females. Secondly, the butterfly I was observing was often disturbed by another Dingy Skipper and both butterflies would then fly away rapidly. I either lost them as they chased each other or ended up following a different butterfly. In the end after about half an hour I decided to change tactic.





Reserve Warden Mike Slater searching Dingy Skipper breeding habitat at Ryton Wood Meadows Reserve

One of the primary aims of the management of Ryton Wood Meadows is to increase the amount of Bird's-foot trefoil to help not only the Dingy Skipper but also Wood White, Green Hairstreak, Common Blue and Clouded Yellow. Looking at all this trefoil I obviously needed to narrow down my areas of search. Planning is always the key, therefore, I consulted the oracle – 'The Butterflies of Britain and Ireland' by Jeremy Thomas.

Jeremy states that, "The eggs are quite easy to find on good sites. To see them search small plants growing in warm sheltered nooks, partly hidden by other vegetation or spreading over bare soil, several may be found together on more suitable plants. Most will be on the youngest leaflets or more often in the groves where the stalks joins the leaves."

Armed with this knowledge I put Jeremy's advice to the test. I first searched an area where I had seen lots of adults. For those who know the site this is the vehicle track that runs parallel with the football pitch hedge. Firstly, I searched all the Bird's-foot trefoil plants growing next to the track and it took me an hour to locate the first egg. I found this egg on an isolated shoot growing over the vehicle track. Once I had found this egg I narrowed my search down to just those shoots of Bird's-foot trefoil growing adjacent to the track. Another 15 minutes and I found my second egg. This I nearly missed as it was greenish white rather than orange which meant that this egg must have been laid in the previous 5 days as it is only after that time lapse that the Dingy Skipper eggs turn orange.

This type of egg search didn't seem that productive therefore I needed to change tactics again. I decided to check a different type of habitat.

To help conserve and increase the Grizzled Skipper population at Ryton Wood Meadows I had created a low lying dry stone wall. An earlier partial search of the wall had shown this habitat creation had appeared to be successful. I decided to search the whole length of the wall for both Dingy and Grizzled Skipper eggs.





Low-lying dry-stone wall created for the benefit of Grizzled Skipper at Ryton Wood Meadows Reserve

I found 40 Grizzled and 3 Dingy Skipper eggs.

In short the wall appears to have been very successful in creating additional Grizzled Skipper habitat but less successful for the Dingy Skipper. The Dingy Skipper population at Ryton is much larger than the Grizzled Skippers. On a good day you should be able to see 20 to 30 adult Dingy Skippers but only 3 to 5 Grizzled Skippers. In addition the Dingy Skipper population is centred in the northeast of the reserve whereas the Grizzled Skipper population is thinly spread over the whole site. Therefore I had obviously still not found the primary habitat for the Dingy Skipper. I needed to have a rethink and consult the oracle once again.

I concentrated on this part of Jeremy’s advice, “Search plants growing in warm sheltered nooks, partly hidden by other vegetation.”

New tactic, I decided to walk over the areas where Bird’s-foot trefoil was abundant. I walked in parallel lines each approximately one metre apart. I only stopped when I located a hollow. I soon found out that I only found eggs when these hollows had isolated shoots growing away from the main plant. These shoots need to be growing over bare earth (scrapes often created by rabbits), by rocks or rubble or most interestingly when growing through the dry or dead grass of Fescue grasses. Interestingly I often found up to 5 eggs in each hollow.



Tips for Finding Dingy Skipper Eggs

1. Search a colony site with public access that has a good population of Dingy Skippers. A site where you can expect to see 20 plus adult Dingy Skippers in a day. I would suggest Pooley Fields for our northern members, Ryton Wood Meadows for our central members and Ettington Cutting for our southern members.

2 Don’t search the sites too early in the season. You need to wait until the density of eggs has built up to a higher enough level that your chances of success will be higher. Also, don’t forget that it is not until after 5 days after the egg is laid that the Dingy Skipper egg turns orange. Orange eggs on green leaves are far easier to find than greenish white ones on green leaves.



3. Don't search the site too late in the flight season. The Dingy Skipper eggs hatch after approximately 2 weeks (9 to 12 days). The Dingy Skipper caterpillar only eats the top of the egg shell so the majority of the vacated egg should be able to be found. During my search I never found any remnants of the shell. I can only assume that the old shell had been eaten by another creature or more likely because of their transparent nature they were more difficult to find. The young larvae weave a silken tent and are difficult to find. In Warwickshire in most years I would recommend searching between the 2nd and 10th of June. Searches will need to be altered if you search for eggs in different parts of Britain or if the flight season is late or early.

4. I would concentrate my search looking for the hollows. The approved method would be to walk over the site where the Bird's-foot trefoil is located. Walk in parallel lines a metre apart as described above.

5. Only stop and search hollows that have isolated Bird's-foot trefoil growing away from the main plant into the hollows.

6. Only search hollows where the Bird's-foot trefoil is sheltered but not shaded by the surrounding vegetation. It is no good searching areas where the vegetation is more than 15 centimetres (6 inches) tall. I made a mistake with my assessments of the Dingy Skipper habitats. I did not measure the height of the surrounding vegetation. However I did measure the height of the shoots I found the eggs on. The average height of the plant I found an egg on was 10.1 centimetres and the highest shoot was 16 centimetres.

7. Only search isolated shoots if they are growing over bare ground, stones or rubble or dry dead grass of Fescue grasses (Fescue grasses are the small very fine grasses, the foodplant of the Small Heath). The approved method is to bend your back so your head is parallel with the hollow and scan each isolated shoot of Bird's-foot trefoil. Be aware that this can make the back ache after a while. Alternatively you can kneel down and scan the Bird's-foot trefoil plant but be careful that you don't kneel on any sharp stone (you could always use knee pads).

8. Only look for eggs on top of the leaves. Dingy Skipper eggs are only known to be laid on the top of the leaf or where the top of the leaf joins the stem.

9. Only search the leaves that are no more than 2.5 centimetres from the top of the shoot. I found two eggs at the very tip of the shoot. The average distance from the top of the shoot was 0.97 centimetres.



10. To give you confidence that what you have found is a Dingy Skipper egg, have a 10x magnifying glass with you and a field guide. The Dingy Skipper eggs are quite distinctive and fortunately cannot be confused with anything else. However, don't do what I did after an hour's searching. I became confident that I could spot a Dingy Skipper egg from my full height of 6 foot 4 inches until I started hallucinating that I saw a Dingy Skipper egg quite plainly move. Was I on drugs? Was I suffering from heat exhaustion? No, on examination of the leaf with my magnifying glass I found the egg was in fact a little orange mite!

Good luck. Don't forget once you have found your first eggs, thoroughly examine the shoots in the rest of the hollow as I found up to 5 eggs in one hollow.