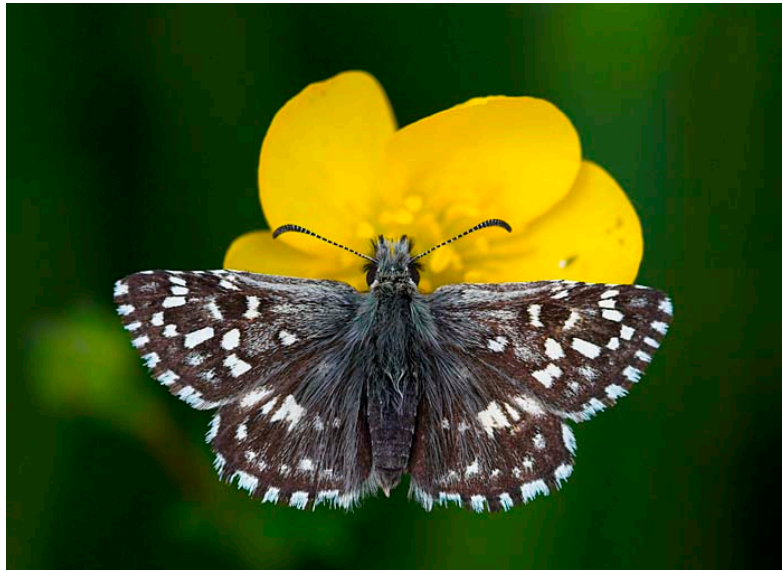


Field Craft Lesson 2: How to Find Grizzled Skipper Eggs

By Mike Slater



The Grizzled Skipper has declined dramatically since the 1950's. In Warwickshire in the last quarter of the 20th Century this is estimated to be 35%. The Grizzled Skipper appears to have suffered more in traditional woodland habitats as coppicing declined and calcareous grassland became scrubbed up or destroyed. However, as some colonies have become extinct there is evidence that other colonies have been established. In the first five years of the 21st Century, Warwickshire has both lost and gained colonies. Warwickshire is fortunate due to the fact that it is criss-crossed by both active and disused railway lines. Even though our habitat is becoming more fragmented there is still enough to allow these colonisations to take place. We are also fortunate in that there are two large military establishments where 10 colonies remain.

It is vital, as part of our conservation strategy to preserve the Grizzled Skipper, that colonies are frequently visited and where possible, monitored by full or species transects. It is probably even more important to establish where the species is breeding in each of its colonies. It has often surprised me how small some of the habitat patches are that are used for egg laying. Of course, the only way to find where the Grizzled Skipper breeds is to either follow females and see them lay or to do egg searches. So following on from my first fieldcraft lesson, 'How to find eggs and larvae of the White Admiral *Ladoga camilla*', here are my top ten tips for finding Grizzled Skipper eggs (ova).

To demonstrate these skills I searched Ryton Wood Meadows. This site has a small colony of Grizzled Skipper. It is unusual to see more than three adults on any one visit. I have seen adults in six different locations on the site in recent years. However, there are currently only two areas I would describe as hot spots for adult sightings.

This is my first tip for finding Grizzled Skipper eggs. The first time you try; don't pick a site like Ryton. Pick a site like Harbury Spoilbank near Leamington. At this site it is possible to see between ten and twenty adults on one visit.

The fact that I can only recommend one site in Warwickshire with public access and a reasonable population of Grizzled Skipper also further demonstrates how vulnerable the butterfly is in Warwickshire to decline or extinction. Warwickshire is believed to have 40 colonies; some further recording work is required to confirm this number. This means we have lost three colonies overall since the Millennium Atlas survey. Despite this we still have approximately 3% of those remaining in Britain. However, most colonies are classified as small and any slight changes in the breeding habitat could cause a rapid local extinction in just two or three years. On the positive side, habitat management or creation could just as easily double the number of colonies to 80 if there is a will out there.

My second tip is have a good knowledge of the site where you intend to look for eggs and pick an area where adults are regularly seen.

We are now making progress; we have narrowed down the area for our search. The next thing we have to do is imagine you are a female Grizzled Skipper. All right, if that is too difficult, imagine you were going to sunbathe, where would you choose to place your sun-bed? Would you place it in an exposed area in the open? Probably not, because it is too windy. Remember, if you are a female Grizzled Skipper you are more likely to be buffeted about when trying to delicately place an egg in exposed areas. Do you pick an area with lots of shelter with large bushes or trees nearby? Again, this is probably a bad choice as some time during the day the chosen area will become shaded and you have to move your sun-bed. In butterfly terms that would mean an egg or caterpillar would take longer to develop. Caterpillars regulate their temperature by using the surrounding temperature in their environment. If they are cooler, they are less active, feed less and grow more slowly. The habitat choice for egg laying is even more critical in poor years and being partly shaded would further aggravate the situation. The caterpillar has less opportunity to warm up to its ideal temperature to enable it to feed efficiently.

My third tip then is to pick a sheltered sun trap. When I looked at my habitat patch a ditch seemed ideal. The ditch runs north south therefore the ditch edges are then either east or west facing. Behind the ditch on the east side is a ride with tall trees. I therefore chose the west facing edge which has sun all day and is sheltered.

The next thing to do is to find the Grizzled Skipper caterpillar's foodplant. The butterfly uses a wide number of foodplants in the Rosaceae family: Agrimony, Creeping Cinquefoil, Wild Strawberry, Barren Strawberry, Tormentil, Bramble, Dog Wood, Wood Avens, Training Tormentil and Fragrant Agrimony. I have personally only found eggs on Barren Strawberry, Wild Strawberry, Tormentil and Creeping Cinquefoil.

My fourth tip then is based on my experience so just search Wild and Barren Strawberry and Creeping Cinquefoil. If you are not sure how to identify these plants there are several good plant identification books around. I use the Collins Wildflower Guide (full details below in reference section.)

My fifth tip is to have the following equipment: a cheap plastic pen and a 10x magnification hand lens. If you are going to record your findings (which I would always advocate) then an extendable tape measure and a notebook are also required.

My next step was to find plants of Barren Strawberry on the eastern edge of the ditch. The first plants I searched were those trailing down or were near the edge. I also looked for those plants that were trailing over any bare ground or dead leaf litter.

My sixth tip is to only search the leaves of plants that are growing over bare ground or through dead leaves. You then use your pen to turn the leaves over starting from the leaf stalk. A smooth thin pen is better than a pencil as it causes less friction on the plant. You should never use your fingers because eggs are often laid near the edge of the leaves and the pressure from your fingers turning over a leaf could damage the eggs.

My seventh tip is to focus your search on the underside of the leaves. I have looked for and found Grizzled Skipper eggs over several years and up to this year they have all been found on the underside of leaves. This year for the first time I found three eggs on the upper surface of Barren Strawberry. In 15 minutes on 28 June I searched approximately 18 plants and found 10 eggs. The eggs themselves are pure white and pin head size. They always look to me like miniature sea urchins or very big sea urchins when you put the magnifying glass on them. A further 15 minutes of searching of other plants in the area only found one further egg – unusually, 80 cm on a plant down at the bottom of the bank.

My eighth tip is to select only a certain size of leaf – between 1.5mm and 2.5mm. I am not sure why but leaves of this size seem to be preferred. Normally, smaller leaved plants are selected because they are more nutritious. However, some of the leaves selected for egg laying did not look in prime condition. Other larger leaved plants that did look in prime condition appeared to have been rejected. I wonder if this is a survival adaptation. Larger leaved plants might be eaten by herbivores and thus the eggs would be destroyed. However, I have no evidence for this theory. The very smallest leaved plants also appear to have been rejected. I wonder if these plants are too small for the females to settle on and then curl their abdomens around to the underside of the leaf to lay an egg.

My ninth tip is to search for eggs towards the end of a flight period. My search was probably a week too early. I would normally recommend the first week of June (in Midlands locations) to search for eggs.

Success breeds success so if you feel confident then the next step is to try searching flat, open land or coppice areas (intermediate and difficult searching). The professionals would probably do this systematically by working across an area in set lines. My tenth and final tip is not quite this systematic. Walk across the area searching for patches of food plant growing in ideal conditions e.g. on ant hills, over stones, rocks or bare ground. In coppice areas look for foodplants growing through leaf litter. Only search those plants growing in these conditions unless you are a really dedicated and patient person. Thirty minutes searching of Barren and Wild Strawberry in a coppiced ride margin found five further eggs. An hour's searching of more open areas only found one further egg (details not recorded other than it was laid on Creeping Cinquefoil – my dedication was beginning to wane.)

On 5 June I searched a blanket of Creeping Cinquefoil at the second hot spot for adult Grizzled Skipper sightings. Three eggs were found – all on plants growing through dry grass.

Egg	Plant	No of Leaves	% Bare Ground	Height off Ground	Orientation & Location	Length of Leaf	Comment
1	Barren Strawberry	12	50	7.9mm	West – Top of Ditch	2.2mm	Plant 1
2	Barren Strawberry	12	50	3.5mm	West – Top of Ditch	2.3mm	Plant 1 as above
3	Barren Strawberry	44	30	7.5mm	West – Top of Ditch	2.0mm	Plant 2
4	Barren Strawberry	44	30	5.9mm	West – Top of Ditch	2.4mm	Plant 2 as above
5	Barren Strawberry	44	30	6.2mm	West – Top of Ditch	2.3mm	Plant 2 as above
6	Barren Strawberry	6	60	5.7mm	West – Top of Ditch	2.3mm	Only 3 big leaves
7	Barren Strawberry	7	30+ Dry Grass	4.4mm	West – Top of Ditch	2.0mm	Plant 4
8	Barren Strawberry	6	20+ Dry Grass	2.5mm	West - Top of Ditch	2.0mm	Plant 5
9	Barren Strawberry	7	60	3.2mm	West – 80cm towards bottom of Ditch	2.0mm	Plant 6
10	Barren Strawberry	16	50	1.5mm	West – Top of Ditch	1.7mm	Plant 7
11	Barren Strawberry	16	50	1.5mm	West – Top of Ditch	1.7mm	Plant 7
12	Barren Strawberry	4	70+ Dry Oak Leaves	2.8mm	West - Edge of Wood	1.55mm	
13	Barren Strawberry	8	80	1.6mm	West – Edge of Wood	1.3mm	Plant Laid on top of leaf 1
14	Barren Strawberry	8	80	1.6mm	West – Edge of Wood	1.4mm	Plant Laid on top of leaf 2
15	Barren Strawberry	8	80	1.6mm	West – Edge of Wood	1.4mm	Plant Laid on top of leaf 2
16	Barren Strawberry	5	70	2.6mm	West – Edge of Wood	1.4mm	
17	Creeping Cinquefoil	5	10	1.5mm	Flat Ground	1.8mm	Blanket of foodplant with dry grass
18	Creeping Cinquefoil	5	10	3.0mm	Flat ground	1.7mm	Blanket of foodplant with dry grass
19	Creeping Cinquefoil	3	10	2.8mm	Flat ground	2.4mm	Blanket of foodplant with dry grass

Finally, why not try and create new Grizzled Skipper habitat? When you find the butterfly's foodplant, place a stone or a brick under the leaves so the leaves are then in a very warm micro-climate. Return in a week's time and see if it has been used. Best of luck and happy searching!

Ryton Update

The latest update on the Grizzled Skipper management trial is as follows:

In May 2004 I cut a small ditch using a mattock (large hoe) next to the metalled road on our reserve. The ditch was dug out to an average depth of 14 cm. The earth dug out was used to create a small mound. In the small mound I placed as many bricks and stones as I could find. The area chosen for the ditch has abundant Creeping Cinquefoil.

This management created lots of areas with Cinquefoil growing over either bare ground or over stones and bricks. The whole length of this ditch was then searched. No eggs were located.

The second piece of management was undertaken on 30 May 2004 in the area where the 16 Grizzled Skipper eggs were found. This management included coppicing some sallow and silver birch regrowth (once we were sure no nesting birds were using the bushes). This management potentially increased the number of usable Barren and Wild Strawberry plants growing on the edge of the ditch from 18 to 33 and the length of the ditch area from 7 metres to 21 metres. These plants were searched but no eggs were found.

On 5 June both areas were researched:

Egg	Plant Species	No of Leaves	% Bare Ground	Height off Ground	Orientation & Location	Length of Leaf	Comment
1	Creeping Cinquefoil	4	80%	2.0mm	In small ditch	2.2mm	Creeping over bare ground

Initially, I was very disappointed by these results. In summary, my idea of creating habitat was probably OK but the management was probably undertaken by the ditch too late. The Grizzled Skippers at Ryton are a small colony and have gone over as soon as this habitat was created. I will be interested next year to see if they use this area. I am more optimistic about the small ditch I created by the road as I have seen both adults in the area as well as finding the one egg. Again, it will be interesting to see if the butterfly colonises the area next year.

References

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