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STOCKWOOD OPEN SPACE

BUTTERFLY MONITORING

SUMMER 2023

FOR

AVON WILDLIFE TRUST

STOCKWOOD OPEN SPACE

BUTTERFLY MONITORING

1 INTRODUCTION

The aim of this project was to establish a methodology for butterfly monitoring at the Stockwood Open Spaced. This report summarises the findings of initial surveys and makes recommendations for further monitoring.

2 METHODS

The survey was based on the Pollard Butterfly Monitoring Transect Methodology, as used in the UK Butterfly Monitoring Scheme (ukbms.org for further details). Walks should be carried out in suitable weather conditions, as this is vital to ensure butterfly activity: in summary, a minimum temperature of 13^{o}c without rain or strong wind and with a minimum of 60% sunshine. Weather conditions should be recorded for each walk, and any significant changes that occur during the course of the walk should be recorded.

The same route should be walked during each visit and butterflies seen within a zone 2.5 metres to either side of the recorder and 5 metres ahead should be counted. Waiting at activity hotspots (however tempting) should be avoided. A separate count should be made for each compartment.

The map below shows the route walked and the compartment numbers used. The walk was planned to cover a representative range of habitats, concentrating on the species-rich grassland for which the reserve is particularly important. The UK Monitoring Scheme recommends weekly visits between April 1st and September 30th. Resources did not allow this level of survey effort and the intention was to make four visits. However, prolonged poor weather in July 2023 meant that this was not possible and only two visits were made. In addition to counting butterflies, numbers of moths, dragonflies, damselflies, beetles and bumblebees were recorded.

3 MONITORING RECOMMENDATIONS

The aim of the 2023 project was to establish a methodology that can be used in future monitoring schemes. Monitoring of wildlife on nature reserves is important as it enables the effectiveness of management to be evaluated, and beneficial changes to management to be made. Any reserve will support a huge number of invertebrate species and butterflies are the most visible and most easily identifiable group of invertebrates, and also the species whose ecology is best understood, making them ideal subjects for monitoring.

Monitoring wildlife is a very good way to get to know a site intimately and to get in touch with the subtle changes of the seasons and, importantly, should be enjoyable. The key to monitoring is to keep a full and clear record of survey effort, which should be stored so that it can be accessed in future years and can be interpreted with ease.

Any survey or monitoring scheme involves compromise between what it ideal and what can be achieved, and potential participants should not be deterred because they

cannot commit fully to the optimal requirements. As noted above, the standard Pollard methodology involves making weekly visits over a six month period and this is the ideal for insect monitoring as weekly visits capture fluctuations in insect numbers as the weather changes. However, this is a significant commitment and it is recognised that few surveyors will be able to dedicate this amount of time to monitoring. The minimum number of visits for a survey to produce meaningful results is probably four. The monitoring can be shared between more than one person, but it is recommended that the route is walked jointly at least once so that a common approach can be agreed. The route takes over an hour to complete; if this is too long then part of the walk could be used, as long as this is recorded.

During the 2023 visits groups of insects in addition to butterflies were counted, selected as they are visible and relatively easy to identify, and therefore to count. However, this is entirely optional and butterfly monitoring is the central aim. I would encourage surveyors to record any group that they are happy to identify. Counts of individuals can be useful even if they cannot be identified to species level – for example, recording numbers of bumblebees as a whole could reveal useful information. Likewise, some butterflies can be difficult to identify if not seen well, so entries such as green-veined/small white or small/Essex skipper may be necessary in some circumstances.

4 SURVEY VISIT DETAILS

14th June 2023 12:20 to 14:00

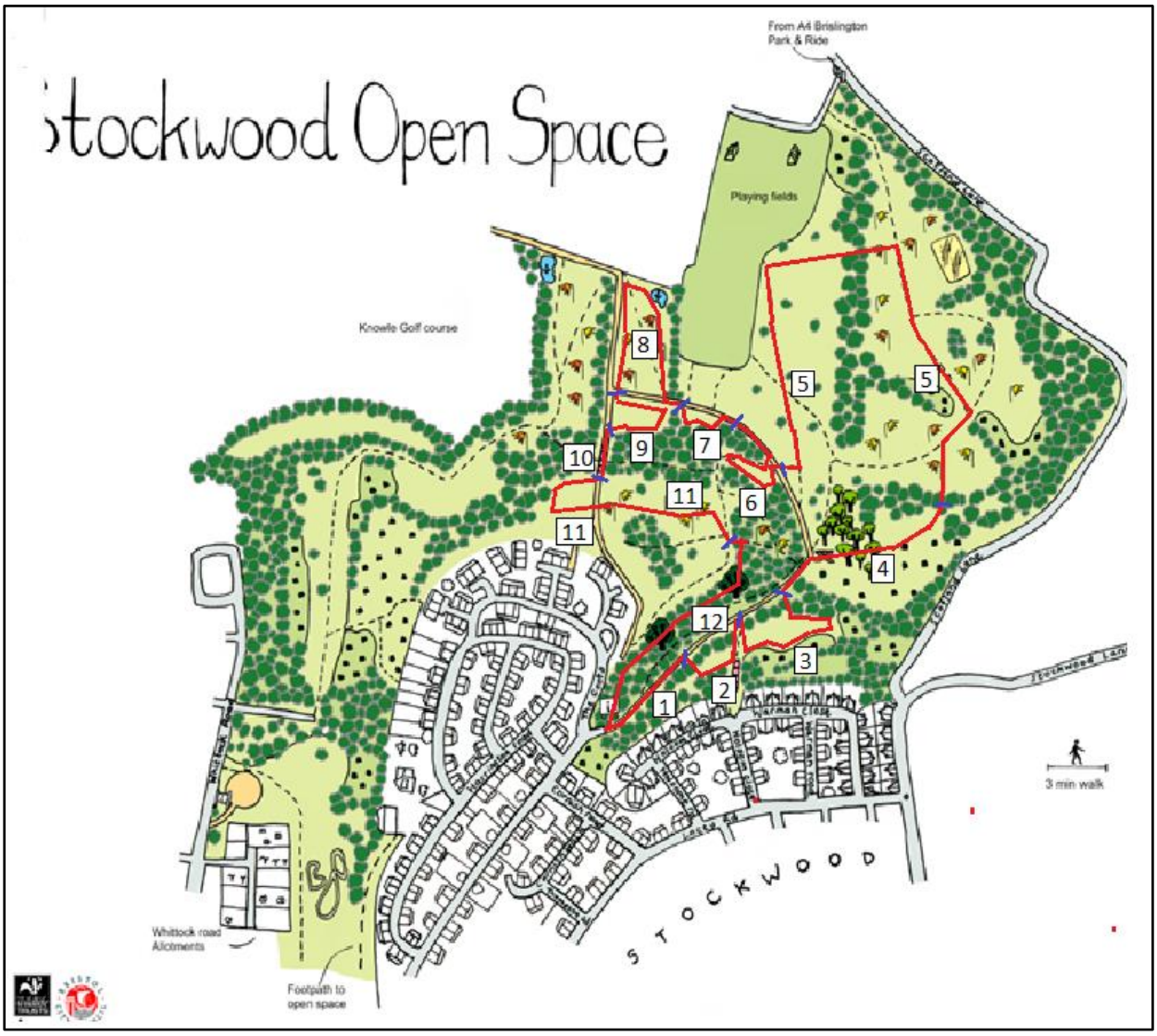
24ºc Wind NE 1 to 2 Cloud cover 0/8

		Compartment										
	1	2	3	4	5	6	7	8	9	10	11	12
Butterflies												
Meadow brown			14	2	1	9	1	45	11		32	
Marbled white					1	1			1			
Speckled wood				1	1					1		2
Common blue			3	1		1		1	2		2	
Small copper			1								1	
Red admiral				1								
Large skipper					4	1						
Large white											1	
Brimstone				1								
Moths												
Narrow-bordered five spot burnet			3			2		3	2		4	
Straw dot								1				
Burnet companion			1									
Silver Y			1			1			1			
Beetles												
Garden chafer					1			1				
Rosechafer		1										
Swollen-thighed flower beetle			2									
Bumblebees												
Buff-tailed		2	2	3	3	3		4	2		1	
Common carder											2	
Early						1		1				
Dragonflies												
Broad-bordered chaser	1											
Damselflies												
Common blue	1											

7th July 2023 11:45 to 13:10

25oc Wind NE 2 Cloud cover 1/8

		Compartment										
	1	2	3	4	5	6	7	8	9	10	11	12
Butterflies												
Meadow brown		2	28	8	5	2	2	25	24		21	
Marbled white			4		1			4	3		8	
Speckled wood										1		
Common blue			1									
Small copper												
Red admiral			1							1		
Small skipper		2	5	3				2	2		4	
Large white			2	2						1		1
Small white	2			1								
Comma	1					2				2		
Small tortoiseshell				1								
Ringlet		8	4	2	1	2		5	7		5	1
Moths												
Narrow-bordered five spot burnet			3					16			7	
Six spot burnet									1			
Thistle ermine								1				
Silver Y			7		2	1	1	1		1	1	
Beetles												
Common red soldier beetle		6	10	11	4	6		8	6		12	
Bumblebees												
Buff-tailed			1	2								
Common carder			1	1							1	
Red-tailed			5									
Dragonflies												
Southern hawker			1					1	1		1	



Transect route (red line) with compartment numbers (1-12), boundaries between compartments marked with blue lines.