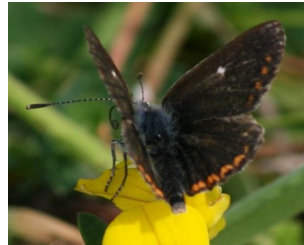


Last spring I decided to combine my enjoyment of the outdoors, desire to improve my fitness, and love of butterflies, moths and other six-legged creatures, by walking a Butterfly Monitoring Scheme (BMS) transect around Alva Glen. While I recorded all butterfly and moth species seen, I was particularly interested in the population of northern brown argus butterflies at the northern end of the glen. This is a United Kingdom Biodiversity Action Plan (UKBAP) and Clackmannanshire Local Biodiversity Action Plan (LBAP) priority species, and is restricted to areas that support its larval food plant, common rock rose (*Helianthemum nummularium*).

A small member of the 'blues', the Scottish race sports a distinctive pair of small white spots on its upper wings, distinguishing it from the female common blue which can be otherwise superficially similar (the male common blue is much more blue!).



Northern brown argus on bird's foot trefoil  
© Scott Shanks



Northern brown argus showing white spots on wings © Scott Shanks



Female common blues can be quite brown  
© Ramsay Young

The transect was walked once a week from the beginning of April to the end of September, with the exception of one week in April and three in late August / early September when the weather failed to meet minimum BMS requirements.

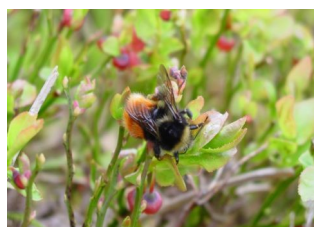
The route started at the lower entrance to MacArthur Braes and followed the main pathway along the glen to the waterfall, up the zig-zag path, through the gate at the top, and back along the outside of the sheep fence to the steep descent through the gorse (Pate Road), finishing at the metal stile near the car park.

Very little butterfly activity occurs until the glen starts to open out after crossing the last of the footbridges, as there is so much shade in the lower part of the glen. Further up the path, before it leaves the burn to climb out of the glen, you may see butterflies drinking from puddles, or nectaring on the many wildflowers that grow alongside in the sheltered sunny areas.

Speckled yellows (a day-flying brown and yellow moth) were abundant in this area, as well as on the climb to the top of the zig-zag path, during late May and early June.

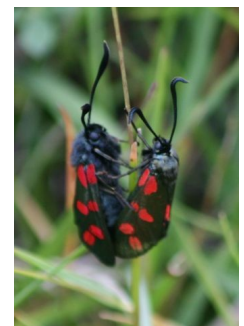
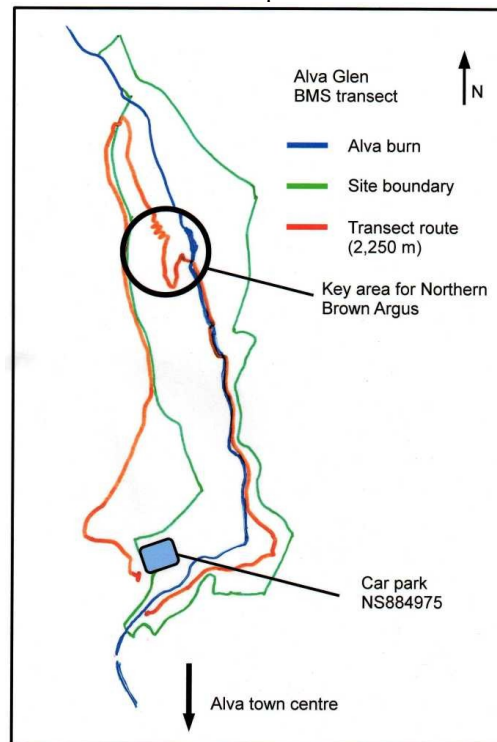
The vast majority of my butterfly and moth sightings were made between the first seat after climbing up from the dam, and the top of the zig-zag path, as this slope is south-facing, has scattered gorse scrub for shelter, bare ground (the path) for basking, and is composed of flower-rich, lightly-grazed grassland (sheep have been excluded from the glen for some years, although roe deer can still be seen inside the fence).

It is in this area that the common rock rose grows on the rocky outcrops alongside the path, and where you are most likely to see northern brown argus, from mid-June to the end of July. Ringlets were abundant on these grassy slopes in July (a butterfly that seems to be expanding its range in Scotland), as were chimney sweepers (a day-flying black moth with white wing-tips) and the magnificent six-spot burnet moths with their bright red and black warning colouration. Small coppers (a tiny, bright orange, feisty little butterfly) were common here and indeed throughout the transect in two generations – May / June and again from the end of July.



Blaeberry bumblebee  
© BBCT

Many people walking in the glen turn back at this point (if they manage to climb this far!), however the section between the top of the zig-zag path and the sheep fence at the northern end of the glen, is well worth a visit, as it is here that the regenerating heather and bilberry support the presence of one of our most beautiful bumblebees, the blaeberry bumblebee, *Bombus monticola*. This is another BAP priority species, and although it is not rare in Scotland, it clearly benefits from



Six-spot burnet moths  
© Scott Shanks

the exclusion of sheep, as it is seldom encountered out on the open, more heavily-grazed moorland nearby. Indeed the presence of this bumblebee has prompted me to register the same transect around Alva Glen with the Bumblebee Conservation Trust for 2009, and take part in their pilot scheme to monitor bumblebee numbers in a similar fashion to the BMS, but counting bumblebees once a month between March and October.

Another BAP priority butterfly, the small heath, is commonly seen throughout the summer on all the grassy sections of the transect, even outside the sheep fence, and seems to prefer a more heavily-grazed sward. Again, this species is not uncommon in Scotland, but has undergone serious decline in other parts of the UK.



Small heath © Heather Young

All of the butterflies and day-flying moths encountered on my visits to Alva Glen are listed in Table 1, below, in decreasing order of abundance, along with the best time to look for them, and their larval food plants – it is the presence of a wide variety of these, along with an abundance of nectar sources, that make the glen so attractive to insects. My original intention was to include a section through the waste ground at the entrance to the glen, but having found that the site is earmarked for housing development (the same exact route must be walked for several years to provide enough data for population trends to be assessed), butterflies and moths on the profusion of buddleia bushes were recorded as casual sightings. There were many peacocks, small tortoiseshells, red admirals, and large and small whites, as well as a single comma (another species spreading further into Scotland), a dark green fritillary, and a lesser broad-bordered yellow underwing moth, perhaps tempted into nectaring in the middle of the afternoon by the extremely unpredictable weather!

Table 1. Butterflies and moths recorded in Alva Glen in 2008, in decreasing order of abundance.

Species	Flight period (Alva Glen 2008)	Main larval food plants
Ringlet	Late June/ July	Grasses
Small heath	End May – mid August	Grasses
Speckled yellow*	Mid May – mid June	Wood sage
Small copper	May / June and again from end of July	Sorrels
Chimney sweeper*	Mid June – end July	Pignut
6–spot burnet*	Mid July – mid August	Bird’s foot trefoil
Meadow brown	July / August	Grasses
Northern brown argus	Mid June – end July	Common rock rose
Peacock	April / May then from late July	Nettles
Green-veined white	May / June	Cuckoo flower / garlic mustard
Orange tip	Late April – early June	Cuckoo flower / garlic mustard
Small white	June / July	Brassicac
Large white	July /August	Brassicac
Small tortoiseshell	April / May then from late July	Nettles
Common blue	June / July	Bird’s foot trefoil
Dark green fritillary	July / August	Violets
Red admiral	From late July	Nettles
Comma**	Late July	Nettles / wych elm?
Lesser broad-bordered yellow underwing**	Late July	Wide range

\*day-flying moths

\*\*single specimen on buddleia on waste ground at entrance to glen

Management of the glen should probably continue to include occasional scrub clearance, particularly of any encroaching on the areas of common rock rose, but enough should be maintained to provide shelter from the strong winds that often seem to funnel up or down the glen, irrespective of wind direction! After a few years of weekly walks around the glen, not only will we have a better picture of the status of the resident butterfly populations, but I should also be considerably fitter!



Small copper sharing a meal with a male field cuckoo bumblebee *Bombus campestris*. © Ramsay Young

For more information on butterflies and moths see the Butterfly Conservation web-site at:<http://www.butterfly-conservation.org/>

For information on bumblebees see the Bumblebee Conservation Trust web-site at:<http://www.bumblebeeconservationtrust.co.uk/>

Heather Young.