THE CHEOUERED SKIPPER AND BUTTERFLY CONSERVATION IN SCOTLAND

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A key date in the development of butterfly conservation in Scotland was the publication of Butterflies in Scotland (Thomson, 1980). This brilliant conspectus of the history of each of the nation's 37 butterflies covered the past 150 years of sightings. It was the moment when modern methods were brought to bear on lepidopteral studies, and in its comprehensiveness and readability it has not I iccn equalled in England. Prior to Thomson's work, much of the data had > dine from the antiquaries-cum-naturalists to whom so much is owed for the I irc-1939 records.

The British Butterfly Conservation Society, on the other hand, is relatively ih-w on the scene in Scotland, the Western Branch based in Kelvingrove Museum & Gallery dating from 1985. The society as a whole was established in 1968 by an amateur entomologist, Thomas Frankland, with Peter Scott as its founding president. Frankland's Dedham house from which the organisation grew remains the administrative centre. The primary function of Butterfly Conservation with its three Scottish branches is to monitor the habitats of threatened butterflies and moths, and to ensure their survival. The crux of lepidopterology is in identifying the exact requirements of the insect, including the minutiae of the larval and imaginal food plants in regard to temperature .ind maturity, and managing the habitat to ensure the necessary conditions. Often this demands such activities as coppicing for the preservation of sunny south-facing rides for the nectar needs of the butterfly. This itself is far from the days when coppicing was a natural part of small-scale wood management where Thomas Hardy could casually write:

I leant upon a coppice gate/When Frost was spectre-gray.

The work done on the Chequered Skipper, Carterocephalus palaemon, is a good example (Figure 1). Until its recent reintroduction into England from French sources it had been specific to Northwest Scotland after its disappearance south of the border in 1976 (Figure 2). As an indication of the state of records until recently, the first definitive sighting dates from a specimen of June 1939. The Scottish Wildlife Trust undertook a number of surveys in the 1970s, discovering many new localities, at which point the Nature Conservancy Council extended the monitoring, and finally Butterfly Conservation came up with a comprehensive Species Action Plan. It is now known in some 50 locations, but is usually seen in low numbers. The centre of the population is Fort William near the site of its original discovery around oak woodlands on the flood plant of the River Lochy (Figures 3 and 4).

When I see this beautiful butterfly I am put in mind of it as a symbol of the '45 since it flies at Glenfinnan. I put this into a poem, part of which runs:

"rowan ripeness

for fantailed fantastic siskin darting, or palaemon flicker across grass. These remain.

Heroics, loyalty, dashed to a broken oar never planted in foreign shore

unchosen distance shattered space."

The Chequered Skipper is an energetic creature, and needs large amounts of sun and nectar to flourish. Eggs are laid on tussocks of purple moor erass (*Molina caerula*), and its flies from May to June. The reason the French *palaemon* was used as the baas for its reintroduction into England is that the continental butterfly utilises the same food plants as the English Skipper- Purple Small reed, Wood Small-reed and Wood False-brome. As Ravenscroft (1996) outs it in his excellent booklet on this butterfly:

All these grasses share one feature. They have wide blades which the larvae of the Chequered Skipper, in common with its grass feeding relatives, the Small, Essex and Large Skippers, require to make protective shelters.



Figure 1 The Chequered Skipper

Figure 2 Distribution of the Chequered Skipper in Northwest Scotland.



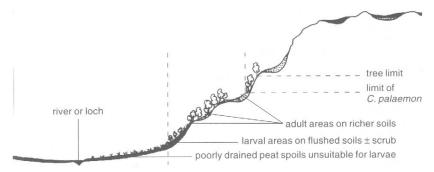


Figure 3 Typical Chequered Skipper site in Scotland. Black areas show peat; stippled areas brown forest soils.

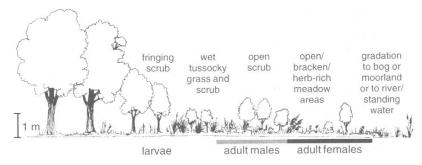


Figure 4 The Skipper's woodland edge habitat.

Likewise the Scottish *palaemon* larva wraps itself in purple moor-grass during the summer to hibernate during the winter.

But sheep-grazing and rapid tree growth can very easily lead to local extinction. It has disappeared from Glen Nevis because of over-grazing. As so often in the complex age of biodiversity, there are serious conflicts of species and land-use interests. Woodland grant schemes, which involve fencing areas to exclude animals and allow regeneration of natural woodland, threaten the habitats. At the moment we are striving to increase the number of protected sites which presently number a mere three, two managed by SNH and one by the SWT. Joint action is being carried out with Scottish Hydro-Electric whose coppicing of wayleaves for their power lines creates clearings where nectar and plants and grasses can develop.

Like the Kentish Glory Moth, the New Forest Burnet (*Zygaena viciae argyllensis*) now only flies in Scotland. In the case of this Burnet - whose English subspecies Z. v. tenensis died out in the 1920 - it survives on a small

ledge which had been missed by grazing sheep. It was discovered originally only in the 1960's, then rediscovered by David Balfour in 1989 though only a handful had survived. This has now been fenced by SNH. Scotland is home to six of the seven Burnets in the British Isles and all except the common Six-Spot are in immediate danger from the ever-expanding bracken. More research is required in the Northwest and Inner Hebrides.

Butterflies, and moths arguably to a lesser extent, rare moths react badly to changes in their grass land rides. They are insects of habit. But the fact is that large areas of Central Scotland are becoming inhospitable to lepidop era due to the progressive disappearance of the relatively specialised habitats that they require. In 1994 I wrote in a burst of fitful optimism in *Butterfly Conservation News*:

I did come across an exceptionally early Large Heath in its *polydama* form down from the uplands in mid-May 1992.... The de-industrialisation of central Scotland may hopefully have the side effect of encouraging species to venture further south.

However the closure of so many deep-mined pits over the past decade partly at least as the result of government policy, has led to the proliferation of opencast mining. Butterfly Conservation Society has successfully assisted in the campaign to halt two such mines in Fife and Clackmannan! Saving the plants and creatures from the depredations of this sterilisation of the ground Nevertheless who e swathes of countryside in Lanarkshire, AyrshSe and mdeed Fife and Clackmannan that have survived road- and house-buUdme programmes are falling prey to opencast developments. It often strategically placed farm that is the target. One area of Lanarkshire near Airdrie is already so battle-scarred, it has been chosen as the setting for the film Pat Barker's Booker-prize trilogy of First World War novels.

Ultimately the only answer is a greatly extended policy of purchase of kei habitats, along with a policy and legal curb on the decimations^ opencastin? Otherwise the shadow of wartorn landscape will come to dominate the lowland Central Belt, and remove the last of the rarer animals that depend upon specialised habitats.

References

Thomson, G. (1980). *The Butterflies of Scotland*. Croom Helm, London Ravenscroft, N. (1995). *The Chequered Skipper*, Butterfly Conservation Society, Dedham, Essex.

Footnotes

To George Thompson's 36 resident and migrant butterflies of Scotland needs to beaded the Gatekeeper, recorded by the Institute fro Terrestrial Ecology on a number of occasions since 1995.

For the future, the Comma had reached north Northumberland by 1995 and may well not have been noticed in the Scottish Borders because of the scarcity of Recorders there.