SOMERSET LEPIDOPTERA 1996

In 1995 we reported on how the drought had affected some butterflies. In 1996 the climate again played an important part. A cold February and March was followed by a late spring with few butterflies on the wing in April. In the last week of May the weather started to warm up and winds blowing from the south-east coincided with the start of a build-up of migrating Painted Lady *Cynthia cardui* butterflies and Silver Y *Autographa* gamma moths. This reached a peak in early June and gave us the best Painted Lady year for over 50 years. This was followed by a short hot summer with large numbers of some species and others suffering as in 1995.

By 30 May, the Painted Lady invasion had already resulted in large numbers being present in north west Scotland, but the movement from the south east into Somerset only reached its peak in the Crewkerne area on 5 and 6 June and in the Taunton area on 8 June. On that day butterflies were seen moving across the County Cricket Ground throughout the match and a similar flow was observed along the south western edge of the Quantock Hills. On 9 June, large numbers were observed resting and nectaring on heathland near Wills Neck, and at Steart Bay hundreds were seen laying on thistles which were already covered with eggs. On Lundy Island on 8 June, 4000 were estimated to be present, a number which had fallen to an estimated 1050 on 9 June; after a fierce storm over 600 (estimate) were still present on 12 June. Swarms of larvae occurred near Hinkley Point with large numbers forming living rafts on a pond. Unusual larval food plants included Greater Plantain *Plantago major*, Elm *Ulmus procera*, Nettle *Urtica dioca* and Common Knapweed *Centaurea nigra*. Numbers of second brood imagines increased from mid-July and large numbers were observed throughout the county in August. A sudden decline occurred in September and few were seen after the first

frost in October. Evidence of a reverse migration was seen at Street in September when a continual stream of butterflies moving south east was observed for several hours. Our last Somerset record was on 29 October, but one was reported in Dorset on 14 November. Relatively small numbers of migrant Clouded Yellows *Colias croceus* were seen. There were two records in early June at Street and Taunton and the numbers observed increased from mid-July with butterflies reported from most parts of the county in August and September. Examples of the pale form *helice* were seen.

Most of our earlier flying rarities, including the Duke of Burgundy *Hamearis lucina*, Small Pearl-bordered Fritillary *Boloria selene* and the Grizzled Skipper *Pyrgus malvae* and Dingy Skipper *Erynnis tages* had a satisfactory year although those which had over-wintered as larvae were on the wing later than usual. The Wood White *Leptidea sinapis* had a good year and has continued to reclaim its former range on the Blackdowns with imagines seen on the Yarty Moor and Boon's Copse Somerset Wildlife Trust reserves. Numbers of the Marsh Fritillary *Eurodryas aurinia* were lower than one would like to see and there is need for some research on the grazing of breeding sites. Grazing at low levels with Exmoor ponies is being tried at the Butterfly Conservation reserve at Haddon Moor. Only three Pearl-bordered Fritillaries *Boloria euphrosyne* were seen on the Worley Hill reserve where considerable efforts are being made to save it. The future of this species in the county may depend on a rebirth of commercial hazel coppicing. Our only Glanville Fritillary *Melitaea cinxia* site, which we thought might succumb after last year's drought, produced small numbers of imagines. On Exmoor, numbers of the Heath Fritillary *Melitaea athalia* varied, with butterflies absent or at low levels where their breeding areas were less suitable. The Somerset Environmental Record Centre's botanical surveyors reported a new site on the west side of the River Exe. We received very few records of the High Brown Fritillary *Argynnis adippe*. There were satisfactory numbers of Dark Green Fritillaries *Argynnis aglaja* and Silver-washed Fritillaries *Argynnis paphia* on most sites.

On the calcareous grasslands some of those species which suffered from last year's drought again had a poor year. On the Draycott Sleights reserve Chalk Hill Blues *Lysandra coridon* again declined because the larval food plant Horse-shoe Vetch *Hippocrepis comosa* failed to recover. Numbers counted on the transect have fallen from a peak on 2913 in 1994 to 1333 in 1995 and 579 in 1996, the lowest count to date. The Small Blue *Cupido minimus* also had a poor year with only four recorded on the Sleights. The numbers of Graylings *Hipparchia semele* were also low on some sites. In contrast the Brown Argus *Aricia agestis* had the best of years, with 22 new 1 km square records and 341 recorded on the Sleights transect, over double the previous best. Many of our recent records are from sites where there is no Rock rose *Helianthemum nummularium*, and one of the *Geraniaceae* must be the larval food plant. The Hairstreaks had a satisfactory year with the White-letter Hairstreak *Strymonidia w-album* recorded from two new areas on the Mendips. We had a considerable surprise when the Essex Skipper *Thymelicus lineola* was found at low levels on three areas around Clatworthy reservoir, which suggests that the species must be more widespread in the county than previously thought.

Most of the common species had a satisfactory year, but there were few Wall Browns *Lasiommata megera* and lower numbers of Ringlets *Aphantopus hyperantus*, Orange Tips *Anthocaris cardamines* and Green-veined Whites *Pieris napi*, and good numbers of Small Heaths *Coenonypha pamphilus*, Small Coppers *Lycaena phlaeas* and Common Blues *Polyommatus icarus*. The Holly Blue *Celastrina argiolus* showed a noticeable recovery in the first brood and a considerable recovery in the second. The strengths of populations were found easier to assess by looking for eggs and larvae on the developing flower buds of Ivy *Hedera helix*. A small survey carried out near Taunton between 3 August and 10 October recorded the species in 99 1 km squares, with eggs found in 76 squares, larvae in 38 squares and imagines in 19 squares.

TONY LIEBERT *and* ROGER SUTTON