

## 2000: A Banner Year for Butterflies

Harry LeGrand

Those of us who have spent a few years looking at butterflies in the Carolinas would probably agree that this year (2000) has been the best that we can remember for overall numbers of butterflies in the mid-Atlantic states. Even some newspaper articles have commented on the same fact, though this is based mainly on the general public's observations of more Eastern Tiger Swallowtails seen in their gardens than by their overall impression of a variety of species!

What has been responsible for this boom year? Comments have been made on Carolina Leps Listserv, and in newspaper articles, about the reasons. The winter, though mostly mild, did have a three-week period of extremely cold and snowy weather, at least in NC. But, as this is a dormant season for most species, the severe weather likely had no effect on most species, which generally pass away the season in the pupal stage. Most importantly, we had no severely cold weather in spring and early summer, unlike the severe weather in late April and early May 1999, when cold and damp weather likely killed large number of larvae. For most of the region, the rainfall levels have been close to normal, though parts of southwestern NC and western SC have had less rainfall than normal. At any rate, in 2000, the Carolinas were not in a drought situation that damaged or destroyed the nectar and host plants for most species.

Rather than specifically detailing some of the species' highlights so far in 2000, I want to summarize a few of the Fourth of July count totals as a way to portray the excitement that was happening across the Carolinas. Those of us who subscribe to the Carolina Leps Listserv are aware of this excitement, but many others might be "in the dark".

The first "count" was an unofficial hairstreak count at Weymouth Woods Sandhills Nature Preserve, NC, on June 3. This state park unit is known for its diversity of Satyrium hairstreaks. Six observers, led by Tom Howard and me, counted a remarkable number of Coral (28) and Edwards' (48) hairstreaks, among several other hairstreaks. A Carolina Butterfly Society walk at the park the next weekend found numerous Edwards' and a state record count of King's, but not a single Coral, emphasizing how quickly broods of some species can terminate.

Though the Forsyth County, NC, count had a rather bland 31 species on June 17, the next day Yadkin County, NC, reached the 40 species level with 41 species, quite impressive for just 190 individual butterflies! However, individuals were not a problem the next weekend at Pettigrew State Park, NC, where nine species were recorded in triple-digits, including counts of 950 Fiery Skippers and 700 Zebra Swallowtails, both of which are likely all-time national highs. And, 42 species were found on the count, with just a single group of four observers in one party.

The last weekend in June saw a remarkable count in South Carolina. On June 30, four parties and 12 observers tallied an all-time Carolina record 62 species (reported as 63, but duskywing [species?] was counted in the total, when other duskywings were tallied). This was the Francis Marion National Forest count held on June 30, compiled by New Jersey's Pat Sutton, who with her husband Clay come down to SC each summer to

compile this and the neighboring Hobcaw Barony count. The previous Carolina record was the 53 species they tallied a year ago. The following day, the Suttons and friends found an excellent 47 species at Hobcaw Barony, bettering their previous high of 34 species.

North Carolina's new Blowing Rock count on July 8 tallied a good 44 species, but this count has potential to reach 50, as much public land along the Blue Ridge Parkway and Pisgah National Forest are available for sampling. Counts swung into full force at the end of July, with Wake County's good but "much-improvable" 49 species, followed by count records 50 at Weymouth Woods and 59 at Raven Rock, the latter far surpassing the previous state record of 51 species set by Raven Rock and Durham County.

The first weekend of August was the inaugural Caswell County count, and Randy Emmitt amassed an excellent 10 observers to find a remarkable 58 species, just off the state record 59 found at Raven Rock a few days earlier. The Durham County count, by far the most "thorough" in terms of count-circle coverage in North Carolina, was held on August 19, and it was widely felt that with five parties covering a large number of public lands, gardens, and dirt roads, the 60- species barrier might be broken in NC. Sure enough, when all the numbers were in, 60 species and a whopping 6955 individuals were observed!

The focus of counts in NC now shifted back to the coast and wetland skippers. Wilmington had a count record 50 species, despite a lackluster number of individuals, on August 26. The next day, the Croatan National Forest had 41 species in its second year. Finally, the Mainland Dare County count, also in its second year, bettered its 1999 mark with 40 species.

Of course, many of the increases in count totals can be attributed to better experience with the 15-mile-diameter count circles. We are still learning the "hotspots" in our count circles, and we often travel aimlessly within the circles the first year or two trying to find a roadside with nectar sources, etc. Yet, there really were amazing numbers out this summer, as emphasized by the new Iredell County, NC, count on August 20. With hardly any local or advanced preparation, Jim Nottke and Randy Emmitt rounded up several other persons to find a good 40 species and 1597 individuals!

We still have much to learn about population trends of species over a 5- or 10-year period. In fact, we still have much to learn about a species' trends even from one brood to the next. For example, many of us were remarking how abundant that the American Lady was this spring and early summer, and many single-observer counts were in the 20-50 range for a single trip afield. Yet, by the time that most Fourth of July counts rolled around in late July, the American Lady was decidedly less common than usual. Some counts in the Triangle area of North Carolina tallied only one or two, with many observers looking! What happened? Shouldn't all of those ladies in spring and early summer laid a large number of eggs that would eventually lead to a large brood in late July and August? Who knows? But, we still might see a good population of the last brood, which flies in September and October.

We do know that the spring and early summer was warmer than usual, such that many species were flying one or two weeks earlier than normal. I recall saying that the inaugural Blowing Rock, NC, count, held on July 8, was going to be more like a count held on July 18 or July 20, owing to the advanced flight. I was right, as we

tallied very few skippers, most of whose first broods had already finished. In a normal year, many skippers should still be in their first broods on July 8.

The most disappointing feature of the butterfly year, as of mid-September, has been the relative lack of a northbound flight of southern species. Little Yellows have been infrequent, and Ocola and Long-tailed skippers, though widely reported from across the Carolinas, have not been really common anywhere. Cloudless Sulphur numbers have been normal to slightly below normal. We have heard little of any flight of Queens, Great Southern White, and Zebras into coastal South Carolina, though these species might still drift northward later in September into November. I would surmise that the drought in southern Georgia and much of Florida may be responsible for these rather depauperate numbers in the face of an otherwise banner year for the local resident species. August and early September have also been wetter and cooler than usual, with winds mainly from the north and east, not conducive to bringing migrants up from Florida and Georgia.

Late September into November can still be exciting butterflying along our coasts, at least from Fort Fisher, NC, southward. That is when we should look for those southern strays, such as White Peacock, Dorantes Longtail, Tropical Checkered-Skipper, Orange-barred or Large Orange sulphurs, Southern Dogface, and a few others mentioned in the previous paragraph.

I will have an accounting of species-specific highlights in the next Chrysalis, once the entire 2000 flight season has come to a close. What the year has lacked so far in out-of-range strays or new discoveries of rare residents has certainly been surpassed by the number of record single-species counts. And, we still have a month or two to find those rare strays!