Number of Contour Feathers in the English Sparrow.—In 1936 Alexander Wetmore published an account (*Auk*, 53: 159–69) of a study made on the number of contour feathers on certain birds. The work interested me greatly and I intended to accept the suggestion he gave to follow some common species throughout the year. Various circumstances have prevented the completion of the problem but it seems desirable to place on record what observations were made.

The English Sparrow (*Passer domesticus*) was selected. The results are tabulated below. Wetmore's single specimen of the English Sparrow is also included. The methods employed were much the same as Wetmore's. All the specimens were collected in the vicinity of Ann Arbor. Before plucking the feathers, notes were made on the condition of the plumage and measurements taken of the wing and tail. The sex of the bird was determined by dissection after completion of the feather counting. The feathers were counted in lots of fifty. Only the contour feathers were counted, the downs and filoplumes were not included.

The disparity between Wetmore's results and mine became evident at the completion of the first specimen. Unable to explain this difference, I felt that perhaps I had been counting many down feathers. On specimen No. 3 special care was given to every feather that was downy in nature. All doubtful feathers were examined under a microscope to determine accurately their nature. I found that there were very few down feathers on the bird. When I removed only those feathers that actually formed a part of the external covering of the bird, an underlying layer of fluffy feathers was left. These downy feathers were structurally contour feathers. The number of these feathers was far too small to account for the difference between Dr. Wetmore's results and mine. On specimen No. 3 these underlying feathers numbered 211 out of the total of 3615.

In a letter commenting on the differences in our results, Dr. Wetmore stated: "I remember the single male English sparrow that I plucked very well indeed. It was an adult in very worn dress taken here during hot weather. The small number of feathers impressed me at the time, and I have gone back again to the original record for this specimen to verify the total as indicated in the *Auk*. I hesitated to include the record with the others but finally put it in."

Despite the fact that his specimen was unusual in the small number of feathers, it is quite evident that the difference between our results is due to some other cause. It would be interesting to know if others have done work of this kind.

There was not much individual variation in the specimens that were counted at the same time of the year. The three mid-winter birds, Nos. 3, 4, and 5, had totals of 3546, 3615, and 3557 respectively, and the variation between the two extremes was 69. It is interesting to note the differences between the two birds collected in July (Nos. 7 and 8). The adult male had 20 pin feathers but extensive molting had not started. The immature bird had no pin feathers. The totals for the two birds are surprisingly similar. The adult male had 3138 feathers and

DATA OF INDIVIDUALS COUNTED

No.	Sex	Date	Total number of feathers
1	♂ im.	16 Nov. 1936	3352
2	♂ im.	28 Nov. 1936	3514
3	♀ ad.	10 Jan. 1937	3546
4	♂ ad.	10 Jan. 1937	3615
5	♂ ad.	20 Feb. 1937	3557
6	♀ ad.	12 Mar. 1937	3515
7	♂ ad.	5 July 1937	3138
8	? im.	5 July 1937	3179
*	♂	2 July 1933	1359

* Wetmore's specimen.

the immature bird had 3179 feathers. Comparing the two summer birds with the three mid-winter birds, it is noted that a loss of 11.5 per cent has taken place. A gradual seasonal change is indicated by the November and March specimens.—ARTHUR E. STAEBLER, *Museum of Zoology, University of Michigan, Ann Arbor, Michigan.*

Does the Southern Hairy Woodpecker Occur in Oklahoma?—The Hairy Woodpecker, *Dryobates villosus,* occurs throughout Oklahoma save in the treeless "Dust Bowl" section. In the extreme northwestern Panhandle (the Black Mesa country) it is represented by a western race, probably *D. v. monticola* Anthony. (Two specimens taken near Kenton, Cimarron County appear to be intermediate between *monticola* and *leucothorectis.* See G. M. Sutton, *Annals Carnegie Museum,* 24, 1934:23). Here it inhabits the juniper- and pinyon-sprinkled mountainsides, rarely, if ever, descending to the cottonwoods of the bottomlands.

So effective a barrier is the treeless Panhandle plain that the species has nowhere invaded the Black Mesa country *from the east,* hence there is no zone of intergradation between *monticola* and any eastern subspecies. But throughout the main body of the state, to the very edge of the Dust Bowl, the Hairy Woodpecker is to be found. The senior author has encountered it repeatedly in Greer, Beckham, Roger Mills, Ellis, and Harper counties, and he is convinced that it ranges westward and southward wherever there is good tree-growth to and across the Texas state line.

Now to what race the Hairy Woodpeckers of the main body of the state belong? Mrs. Nice, in her useful "Birds of Oklahoma" (*Publ. Univ. Okla. Biol. Surv.,* 3, No. 1, 1931) lists two subspecies, *D. v. villosus,* "the breeding form of central Oklahoma"; and *D. v. audubonii,* a "resident in eastern Oklahoma."

During the course of the senior author's investigation of Oklahoma birdlife in 1936 and 1937 five Hairy Woodpeckers (four adult males and one juvenile male) were collected in the main body of the state. All these prove to be *villosus.* Not one of them tends to be small or dark. The most significant individual of the series, an adult from Broken Bow, McCurtain County, in the extreme southeastern corner of the State, is large even for *villosus,* the wing measuring 121 mm. (Ridgway's average for twenty-five male *villosus* is 120.4), and the bill 32.5 (the extreme in Ridgway's series is 33). Among eighteen adult male *villosus* in the Cornell University collection (from New York, New Jersey, and western Virginia) only one is as long-billed as this McCurtain County bird.

Determined to ascertain whether *audubonii* has actually ever been taken in Oklahoma, the authors borrowed from the University of Oklahoma Museum of Zoology their entire series of *Dryobates villosus,* six specimens, four of them adults, and all but one with data. The only bird in the lot marked *audubonii,* a young male taken July 1, 1923, in McCurtain County, is subspecifically unidentifiable. It is blunter-billed than the adult male from the same region, of course—that is to be expected in so young a bird. The only other specimen in the series that might conceivably be called *audubonii* is a smallish, short-billed female wholly without data. Among the comparative material at hand are four fresh topotypical *D. v. audubonii,* collected by Mr. Herbert L. Stoddard in the Thomasville region of Georgia.

As a result of finding (a) that the only breeding McCurtain County specimen available is *villosus* and (b) that the McCurtain County *audubonii* specimen listed by Mrs. Nice is a racially unidentifiable young bird, the authors are forced