

the peninsula of Florida than in the central and northern parts and are supposedly absent from the Keys. The writer spent seven weeks, January 17 to March 8, 1938, near the city of Miami and found Black Vultures fairly common, even outnumbering the Turkey Vultures at times, from Miami south to Homestead and across the Tamiami Trail as far west as Port Everglades. They were also noted on three occasions on the Florida Keys and one specimen, a victim of an automobile on the Tamiami Trail, was examined. Identification in the field was made easy in most instances because of the relative tameness of the birds, which were often seen standing along the side of the road waiting to resume feeding after the cars had passed. Fifteen field trips were made during the seven-weeks' period and birds of this species were seen on each occasion. Black Vultures were noted on the Florida Keys during a trip to Key West, February 9, 10, and 11. Four individuals were seen in Key West on the 10th and forty birds were recorded on the round trip.

A summary of the number of individuals of this species seen on the fifteen field trips, compared with the number of Turkey Vultures, is shown in the accompanying table giving the dates and localities for each trip.

Date	Locality	Black Vultures	Turkey Vultures
January 17	Miami	20	8
January 25	Port Everglades	60	10
February 7	Tamiami Trail	40	20
February 9	Miami to Key West	15	23
February 10	Key West	4	2
February 11	Key West to Miami	25+	25+
February 16	Dade County	6	45
February 17	Tamiami Trail Region	3	5
February 19	Tamiami Trail Region	26	48
February 21	Miami	17	26
February 23	Tamiami Trail Region	14	17
February 23	Homestead	25+	25+
February 25	Homestead	25+	25+
March 7	Miami Beach	4	2
March 8	Fort Lauderdale	6	11
Total	.....	290+	292+

—JOHN C. JONES, Bureau of Biological Survey, Washington, D. C.

**Swallow-tailed Kite in Connecticut.**—Sage and Bishop's 'Birds of Connecticut' gives three records for this graceful and unmistakable bird (*Elanoides f. forficatus*) in Connecticut: summer 1861, July 2, 1877, and June 16, 1889. All these records are for the coast of the State, on Long Island Sound. On July 29, 1938, and again two days later, an individual of this species was seen soaring over a field in Litchfield township in the northwestern corner of the State. On one occasion it was seen perched on a fence-post at close range. Flushed, it flew effortlessly over the field, gliding close to the grass the way a Marsh Hawk (*Circus*) does, possibly in search of insects or snakes.—S. DILLON RIPLEY, *Litchfield, Connecticut*.

**Hawk notes from Sterrett's Gap, Pennsylvania.**—A picture of the fall migration of raptors differing in a significant way from that of Hawk Mountain on the same

flyway is seen at Sterrett's Gap for the seasons of 1938 and 1939. Sterrett's Gap is a shallow wind gap on the Kittatinny Ridge between Cumberland and Perry Counties twelve miles west-southwest of the Susquehanna River and 'down' the ridge as the birds fly, seventy miles from Hawk Mountain. This is a region of broken and converging ridges immediately to the north of the Kittatinny and of two companion ridges just to the north and paralleling the Kittatinny; and in close proximity to it here but east of the river they begin turning away from it obliquely in a northeastward direction, gradually at first and at last more sharply until at a point due north of Hawk Mountain they are some miles distant. In all this region, the Kittatinny, as elsewhere along its course, is the only continuous ridge flanked on the south by the Kittatinny Vale, a broad valley, and on the north, more and more as it draws nearer to Sterrett's Gap, by numerous ridges and tumbling hills which are the beginnings of the Appalachian Plateau.

A careful comparison of the Sterrett's Gap records of the hawk flight with those of Hawk Mountain for the same seasons and days presents an extremely interesting and, I believe, significant result. The great differences that appear when the two records are compared I believe to be due to the presence of individual birds not seen at Hawk Mountain and to the absence of large numbers of hawks (perhaps 70% of the Hawk Mountain flight) that have drifted from the ridge in the intervening miles. These notes are presented to share with others this point of view.

First of all, individuals of the less-frequent species that appear along the flyway in migration and are counted at the two points do not seem to correspond. In general, the number of migrating raptors at Hawk Mountain is 35% greater than at Sterrett's Gap. The notable thing is that this difference is made by the greater numbers of the most-abundant species at Hawk Mountain. A check on the least-abundant species gives a different picture. The following table shows the relative frequency of the least-abundant species for the two years:

	<i>Sterrett's Gap</i>		<i>Hawk Mountain</i>	
	1938	1939	1938	1939
Turkey Vulture	242	333	60	146
Goshawk	21	18	9	29
Rough-legged Hawk	2	4	—	7
Golden Eagle	28	40	31	83
Bald Eagle	15	24	37	64
Osprey	74	89	124	174
Duck Hawk	24	43	24	38
Pigeon Hawk	6	21	12	43

It will be noted that the statement made above the table is much more true of 1938 than of 1939. The differences shown in the table point to birds not seen at Hawk Mountain only when the Sterrett's Gap figure is very nearly equal to or greater than the Hawk Mountain figure. It is well known that many birds leave the ridge in the seventy miles between the two points, a factor which would account for the disparity in numbers at the second point. But where the figures very nearly equal or exceed those of Hawk Mountain the presence of other birds would certainly be indicated.

This would not be convincing evidence were it not for another discovery, namely, in the study of two species, Golden Eagle and Duck Hawk, it is evident that possibly 70% or better of the individuals of these species seen at Sterrett's Gap are not

seen at Hawk Mountain. I am fully aware that this is an astonishing statement but the observations that follow leave me no choice but to make it. The typical case is that of the Golden Eagles for October 1, 1938. On that day the first Golden Eagles of the season for each place were tallied, four at Sterrett's Gap and four at Hawk Mountain. The eagles recorded at Hawk Mountain were: 1 adult at 9.15; 1 adult and 1 second-year bird at 4.10; 1 adult at 4.42. Those recorded at Sterrett's Gap were: 1 immature at 9.00; 1 adult at 9.52; 1 adult at 2.59; 1 second-year bird at 3.45. Three of these eagles could not possibly have been seen at Hawk Mountain. One, the adult tallied at Sterrett's Gap at 2.59, could have been the adult noted at Hawk Mountain at 9.15. Another and similar case in point is the comparative analysis of the Duck Hawks recorded for the first eleven days of October 1939. At Hawk Mountain the total for those days was eleven, at Sterrett's Gap seventeen or at least six Peregrines at our point that were not observed at Hawk Mountain. The times and days for these birds compared present a hodge-podge as does every effort for the least-frequent migrants. There are numerous incidents such as these two pointing always to the belief that only a small percentage of the Sterrett's Gap birds have flown past Hawk Mountain.

The best evidence of a differently constituted flight at Sterrett's Gap is found from a comparison of flight graphs depicting the intensity of flight at both places correlated with the dates. If the majority of Sterrett's Gap birds were the same as those of Hawk Mountain, the great flights there should affect the intensity of the flight at Sterrett's Gap on the same or the following day. Such seems to be generally the case but there are numerous and important exceptions. If a great flight should occur at Sterrett's Gap before one occurs at Hawk Mountain, then obviously the flight has little or no connection with Hawk Mountain since the migrants must pass Hawk Mountain before reaching Sterrett's Gap. On October 5, 1939, 1480 raptors flew over Sterrett's Gap. For the same day Hawk Mountain produced 439 birds with a total for the three preceding days of 440 as against the Sterrett's Gap total for the same three days of 680. Assuming that all of Hawk Mountain birds were seen at our point (which is an absurd assumption on the grounds of every record we have) there are left 1281 hawks that were never tallied at Hawk Mountain. There are six other incidents of this same thing for the two Octobers of 1938 and 1939 alone. This presents a picture that is precisely the reverse of what we would expect if we assumed that the bulk of the Sterrett's Gap migrants had come past Hawk Mountain. To my mind this is the most unassailable argument in favor of my contention that the vast majority of the Sterrett's Gap birds represent a flight only remotely associated with Hawk Mountain.

The source of the Sterrett's Gap birds is not difficult to guess. It lies in the ridges independent of the Kittatinny that come closest to it in the vicinity of the Susquehanna River where they are in great profusion and confusion but finally narrow away northeastwardly in several well-defined ridges toward the northeast corner of the State. But the birds coming from this region, striking the Kittatinny flyway and passing over Sterrett's Gap, do not make up for the numbers that have drifted away southward from the flyway in the seventy miles separating Sterrett's Gap from Hawk Mountain. For this 1939 season the total in round numbers for Hawk Mountain is 23,000; for Sterrett's Gap, 14,000.

The problem is of course what percentage of Sterrett's Gap birds are not seen at Hawk Mountain. On the basis of the above notes and of many for which there is not space, all indications point clearly to a percentage well above fifty. It is difficult to accept this idea in view of our conviction of the limited hawk population of

northeastern North America. Yet accept it I, at least, must. I would be happy to hear from anyone interested in this problem and from anyone who has made observations that would throw some light by agreement or disagreement on the significance of these notes.

I am grateful to Maurice Broun of Hawk Mountain for permission to study his records.—EDWARD SNIVELY FREY, 517 Hummel Avenue, Lemoyne, Pennsylvania.

**Unusual nest of Killdeer.**—On May 29, 1939, a nest with two eggs of the Killdeer (*Oxyechus vociferus vociferus*) was found in an unusual position at Langley Park, Silver Spring, Maryland, about two miles north of the District of Columbia line. A patterned brick walk, ten feet wide, leads from the house down to a small lake in a series of terraces and steps. On the lowest terrace at the edge of the steps and about twenty-five yards from the lake, the birds had taken possession of the top surface of a brick bruised by the frost, and had chipped the surface into small pellets and added small pebbles to make a 'nest' (see Plate 4, upper figure). The walk is constantly used by the family and the gardeners but the sitting bird displayed but little fear of mowing and watering going on within a few yards of it. Steps were immediately taken to protect the nest from marauders, and chicken-wire about eighteen inches high was placed around it supported by four wooden stakes. This precaution unsettled the bird so the stakes were removed and a small opening was left by which the bird could approach on foot. This method was successful and the bird sat on the eggs for several days.

On June 1, there were four eggs and a photograph was taken. On the morning of June 9 it was discovered that one egg was missing, probably due to a human predator. The wire netting had been displaced. At this time there was extreme heat with the thermometer up to 95° F. in the shade. The bird was observed on several occasions endeavoring to shelter the eggs by standing between them and the sun. The bird seems even to have realized that heat was too great for young to hatch, and on about June 11 the nest was abandoned.

During the time that the female (presumably) was brooding the other bird was constantly close by. Unfortunately pressure of other work did not permit of a close watch in order to see whether the male at any time took the female's place.—L. McCORMICK-GOODHART, *Silver Spring, Maryland.*

**Winter range of the Herring Gull.**—The winter range of the Herring Gull (*Larus argentatus smithsonianus*) is given in the fourth edition of the A. O. U. 'Check-list' as "south to the Bahamas, Cuba, Yucatan, and the coast of Alabama and Texas." The inclusion of any territory outside the United States was based on very few records. Returns from banded birds indicate that the Herring Gull winters commonly throughout the Gulf region of Mexico, and occurs casually as far south as Panama. To date nearly a hundred recoveries have been received from Mexico, about half of them from the coast of Vera Cruz, mainly from the vicinity of the city of Vera Cruz, the Bay of Alvarado, and Puerto Mexico. Birds have also been captured near Alvaro Obregon, Tabasco, and on the coasts of Campeche, Yucatan, and Quintana Roo. The dates of capture range from August to April, but the majority were taken in January or February. Inland birds have been reported from Don Martin Dam, Coahuila; Coscomatapec, Vera Cruz; the district of Tulancingo, Hidalgo; Los Reyes Lagoon, eighty miles northeast of Mexico City; Chapala, Jalisco; and Lake Patzcuaro, Michoacan. The southernmost previous record for western Mexico is the Tres Marias Islands.