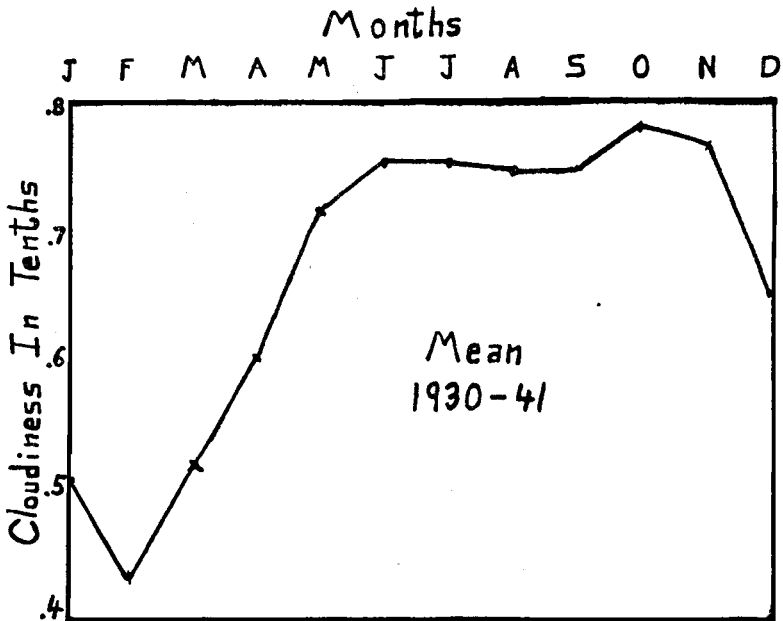


In early August of that year, the pool became muddy-looking and lost the limpid attractiveness of the early part of the season. Lily leaves, buds, and blossoms were found floating, some being cut away each day from the plants. The remaining leaves became ragged-looking because great pieces were pulled or bitten from the margins. On August 16, chunks of skin with feathers attached, wing and tail plumage, and the body of a Mourning Dove (*Zenaidura macroura carolinensis*) were found floating in the pool. The entire breast and part of the head had been gouged out and consumed. The dove wore an aluminum band which, in the terrific struggle that must have occurred, was pulled over the toes and partially opened as the turtle presumably clamped its jaws over the foot and pulled the bird under water.

The pool was drained without further delay. A six-inch snapping turtle was found on the bottom. It was destroyed and no further depredation upon birds or lilies has occurred since.—AMELIA R. LASKEY, *Graybar Lane, Nashville 4, Tennessee.*

The possible effect of cloud cover on bird migration in Central America.—Experimental evidence in recent years has established the importance of light in northward migration of some temperate-latitude birds. The migration northward from tropical equatorial regions remains open to speculation. Experiments have not yet settled the question whether light itself, acting through the pituitary, is the instigating factor in these temperate-latitude birds (Benoit, 1937; Bissonnette, 1937; Riley, 1941), or whether length of day which increases time of wakefulness is the instigator of northward migration (Rowan, 1929; Wolfson, 1942). Neither of these hypotheses fits migration from tropics since, at the equator, length of day is constant. This has led to theories of an inherent cyclic recovery mechanism of the endocrine system (Bissonnette, 1937; Woodbury, 1941; Blanchard, 1941).



TEXT-FIGURE 1.—Seasonal Variation in Cloudiness at Balboa Heights, C. Z.

The following striking weather phenomena occurring in tropical America is pointed out here, which shows remarkable coincidence and possible bearing on migration of North American birds. In Northern Hemisphere winter, a displacement of the Atlantic high pressure circulation cell takes place southward. This is associated with a movement of the inter-tropical convergence zone of cloudy weather from around 10 degrees N. Lat. south to the equator. Thus in the middle of December the air above 5000 feet in Central America and northern South America changes from moist layers, often heavily laden with altostratus clouds, to a dry condition with relative humidities of 30% or less. Greater stability and dryness eliminate most thunderstorm activity, and the dry season is on. The return of the wet season with its heavy clouds occurs again in the middle of April. Although this effect is much modified by topography, the basic difference in cloud cover is the same over the whole region.

Referring to Text-fig. 1, it is seen that the decrease in cloud cover occurs about a month before birds should leave the winter range for the north. The magnitude of the seasonal change in light is shown by the following figures recorded by Weather Bureau sun duration recorders over a period of years. These figures measure the actual time the sun is out from behind clouds.

HOURS OF SUNSHINE PER DAY			
	Canal Zone	Florida	Ohio
	(20 yrs. data)	(40 yrs. data)	(40 yrs. data)
June—August:	4.8 hrs.	8.0—8.0 hrs.	9.0—10.0 hrs.
December—February	7.9 hrs.	6.0—7.5 hrs.	3.0—4.0 hrs.

This cloud-cover effect is not confined entirely to the tropics. Comparison of the data above shows the extent that cloud-cover in Ohio in winter, due to passage of winter frontal systems, further cuts down on the light of the short days as contrasted with summer when extensive frontal cloud systems are less common.

A further consideration is the quality of light. The clouds persisting in the American tropics until the middle of December are predominantly bluish. These clouds filter the shorter wave-lengths so that the change in December is an increase in intensity of all wave-lengths and a very large increase in the shorter lengths.

Whether these interesting changes have a bearing on bird migration will have to be proved by experiments carried on in the tropics with tropical wintering species. The purpose here is to point out that changes of light intensity correspond well with bird migrations and changes further north.—HOWARD T. ODUM, *Chapel Hill, North Carolina.*

Golden Eagle captures Red-shouldered Hawk.—Among the many thrilling and exciting happenings incident to hawk-watching on Hawk Mountain, are the occasional performances of raptors making passes at, or harrying, one another. More than once I have seen Sparrow Hawks, or Sharp-shinned Hawks, and even Goshawks, pester Golden Eagles in passage over the Sanctuary. Almost always the large birds have exhibited the indifference and serenity becoming to the "lords of the air." An oft-repeated question at the Sanctuary is, "Do the hawks ever kill anything as they pass?" My answer had always been, "No." But on November 1, 1946, I saw an astonishing thing, at an incredible height over the lookout rocks. Lying on my back and scanning the zenith with my 7 x 50 binocular, I picked up a small hawk making frequent passes at a much larger, dark bird. The smaller bird persisted in