

A Statistical Study of Ohio Raptorial Birds.—The writer for many years has been interested in the relative abundance and the fluctuation in numbers of the two vultures, the ten owls, and the fifteen hawks known to have occurred in Ohio. During the years 1918 to 1931, inclusive, a careful record has been kept of the exact numbers recorded of each species on all field trips taken. During this period 1,575 whole or part days have been spent in the field, totaling 12,694 hours of observations, 8,071 miles covered on foot and more than 96,000 miles by auto transportation. Every township in the state has been visited and some work has been done in each county of the state during each of the last five years, so the observations have been fairly evenly divided among all sections of the state. A summary of the total numbers of each species enumerated during the fourteen years is as follows:

Turkey Vulture (<i>Cathartes aura septentrionalis</i>).....	15,745
Eastern Sparrow Hawk (<i>Falco sparverius sparverius</i>).....	3,841
Marsh Hawk (<i>Circus hudsonius</i>).....	1,284
Eastern Screech Owl (<i>Otus asio naevius</i>).....	651
Eastern Red-tailed Hawk (<i>Buteo borealis borealis</i>).....	538
Cooper's Hawk (<i>Accipiter cooperi</i>).....	442
Barn Owl (<i>Tyto alba pratincola</i>).....	301
Northern Red-shouldered Hawk (<i>Buteo lineatus lineatus</i>).....	263
Great Horned Owl (<i>Bubo virginianus virginianus</i>).....	236
Sharp-shinned Hawk (<i>Accipiter velox velox</i>).....	127
Black Vulture (<i>Coragyps atratus atratus</i>).....	111
Northern Barred Owl (<i>Strix varia varia</i>).....	70
Short-eared Owl (<i>Asio flammeus flammeus</i>).....	69
Northern Bald Eagle (<i>Haliaeetus leucocephalus leucocephalus</i>).....	37
Osprey (<i>Pandion haliaetus carolinensis</i>).....	37
Eastern Pigeon Hawk (<i>Falco columbarius columbarius</i>).....	33
American Rough-legged Hawk (<i>Buteo lagopus s. johannis</i>).....	26
Eastern Goshawk (<i>Astur atricapillus atricapillus</i>).....	15
Saw-whet Owl (<i>Cryptoglaux acadica acadica</i>).....	14
Long-eared Owl (<i>Asio wilsonianus</i>).....	14
Broad-winged Hawk (<i>Buteo platypterus platypterus</i>).....	11
Snowy Owl (<i>Nyctea nyctea</i>).....	8
Duck Hawk (<i>Falco peregrinus anatum</i>).....	5

The total number of raptorial observed in the fourteen years was 23,876. The count by years was: 1918, 697; 1919, 1142; 1920, 923; 1921, 1679; 1922, 1273; 1923, 1648; 1924, 1352; 1925, 2237; 1926, 1315; 1927, 1698; 1928, 2244; 1929, 3434; 1930, 2266; and 1931, 2207. This represents an average of about fifteen raptorial for each day spent in the field, two per hour in the field and three to each mile on foot. The vultures totaled 15,856 individuals, or ten birds per field trip; the hawk group totals 6,654 individuals, or 4.2 birds per field trip; and the owls total 1366 individuals or an average of .9 birds per day in the field. In comparing numbers of field counts of various species, the general habits of the species and its conspicuousness and ease of identification should be taken into consideration. Owls are always much more abundant than the number actually observed would seem to indicate, due to their nocturnal habits and secretiveness. The figures would seem to indicate that hawks were about five times as common as the owls and that the Sparrow Hawk was about six times as common as the Screech Owl, while actually the two species are believed to be of about equal abundance over a large portion of the state.—LAWRENCE E. HICKS, *Ohio State University, Columbus, Ohio.*