

THE 1979, 1980, AND 1981 AUTUMN HAWK COUNTS AT BAKE OVEN KNOB, PENNSYLVANIA

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During the autumns of 1979, 1980, and 1981, counts of migrating diurnal birds of prey were made as the birds passed Bake Oven Knob, Lehigh County, Pennsylvania. These, and raptor counts from previous years, are part of a long term program of monitoring diurnal raptor migrations at this site (Heintzelman, 1975; Heintzelman and MacClay, 1975, 1977, 1979).

THE 1979 SEASON

In 1979, field studies began on 8 August and continued through 18 November with 197 hours of observation achieved during a period of 34 days of coverage on the lookouts. A count of 12,779 diurnal raptors was tallied. Noteworthy, on 19 September, was a Black Vulture observed at 0845 hours by Ralph Bardman. This represented the second record for the species at Bake Oven Knob.

As in the past, efforts were made to determine ages of eagles observed despite the fact that some eagles passed the lookouts uncounted because of a lack of observers during some days. Of the Golden Eagles counted, all 6 (100%) were immatures. Of the 6 Bald Eagles seen, 5 (83.3%) were immatures and 1 (16.7%) was adult. The incompleteness of the sample probably accounts for the unusually high percentage of immatures and almost certainly does not represent any biological significance.

THE 1980 SEASON

The 1980 Bake Oven Knob hawk count began on 16 August, a day that produced 3 adult Bald Eagles, and continued through 3 November. There were 175 hours of observation achieved during a period of 33 days of coverage on the lookouts. The season's diurnal raptor count was 9,451 birds. A Black Vulture, observed on 31 August by Barry Reed and others, was the third record for Bake Oven Knob.

Efforts to determine ages of Golden Eagles this year were not successful because several of the observers making counts on important eagle migration days failed to note the ages of the birds observed. However, at least 15 Golden Eagles were counted during the season and several of the unidentified eagles reported also may have been Golden Eagles. Of the 19 Bald Eagles observed, age data were recorded on 14 birds. Adults accounted for 9 (64.3%) of the sample, whereas immatures were represented by 5 (35.7%) of the total. This percentage of immatures is relatively normal for a Bald Eagle population and certainly is a marked improvement from some past years when Bald Eagles exhibited severe reproduction reductions due to pesticide pollution in the environment.

THE 1981 SEASON

The 1981 hawk count at Bake Oven Knob began on 25 August and continued through 25 November. All or portions of 50 days were covered resulting in 260 hours of observation being achieved. The season's diurnal raptor count was 11,500 birds.

This year Black Vultures appeared in much larger numbers than ever reported previously at the Knob. On 26 September, while standing in the parking lot, I was astonished to see two separate flocks of Black Vultures soaring overhead; in all, 7 birds were counted. All prior observations of Black Vultures at Bake Oven Knob were of single individuals. On 12 November, while on the North Lookout, John Leskosky and I observed another flock of 4 Black Vultures south of the lookout. In future years, Black Vultures probably will be seen more or less regularly as autumn migrants at Bake Oven Knob and other Kittatinny Ridge hawk lookouts since the species is expanding its breeding range farther and farther northward in recent years.

Broad-winged Hawks this year passed in relatively modest numbers with the only large flight seen on 19 September when 2,093 Broad-wings were counted. Many of these birds passed low overhead offering observers excellent views of the raptors. According to verbal reports received from other observers, much of the 1981 Broad-winged Hawk migration apparently shifted south of the Kittatinny Ridge and was seen along the coast and at various other scattered locations.

Of the 17 Bald Eagles observed in 1981 at Bake Oven Knob, 9 (52.9%) were adult and 8 (47.1%) were immatures reflecting a healthy reproductive rate for these birds and marked improvement over some Bald Eagle age ratios reported years ago at this site. Golden Eagles also exhibited healthy age ratios, with 10 eagles (55.5%) being adult and 8 birds (44.5%) being immature.

Past hawk watching efforts at Bake Oven Knob did not attempt to determine age ratios of Ospreys migrating past this site, but with the recent publication of good field marks suitable for separating adults and immatures when the dorsal surface of Ospreys can be seen (Heintzelman, 1979: 6), I made a few informal and preliminary efforts to check Osprey ages on several occasions during the 1981 season. Generally, I was pleased at the numbers of immatures seen and efforts may be made in the future to gather systematic data on age ratios of this species. I recommend that hawk watchers at other hawk lookouts also attempt to gather Osprey age ratio data in the future.

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AUTUMN HAWK COUNTS
BAKE OVEN KNOB, PENNSYLVANIA

Species	1979	1980	1981
Turkey Vulture	138	100	131
Black Vulture	1	1	11
Northern Goshawk	7	8	52
Sharp-shinned Hawk	4897	2950	3741
Cooper's Hawk	112	120	109
Red-tailed Hawk	780	1574	1693
Red-shouldered Hawk	34	39	86
Broad-winged Hawk	6045	4180	4939
Rough-legged Hawk	1	7	7
Golden Eagle	6	15	18
Bald Eagle	6	19	17
Northern Harrier	93	105	120
Osprey	266	161	258
Peregrine Falcon	6	0	3
Merlin	6	7	3
American Kestrel	190	127	219
Unidentified hawks	191	35	93
Unidentified eagles	0	3	0
Totals	12,779	9451	11,500
Number of Observation Days	34	33	50
Number of Hours of Observation	197	175	260

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