

Five years of hawkwatching at Illinois Beach State Park: where are we now?

by Vic Berardi and Paul Sweet

In 2000, Vic Berardi decided to start a dedicated volunteer hawkwatch at the North Unit of Illinois Beach State Park. Although David Johnson and Joel Greenberg had conducted two season-long counts in the South Unit in the early 1980's (Greenberg 2002), nothing more than casual observations had been undertaken since, and no effort to actually analyze the data from those censuses has ever, to our knowledge, been made. Mount Hoy, in DuPage County, was also the site of an organized count from 1985 to 1988, but we are unaware of any published data from this location. We here report on the first attempt to analyze population trends of migrating raptors in Illinois.

Methods

From 2000 through 2004, we recorded number and species of raptors (Order Falconiformes, also Turkey Vulture) migrating past the North Unit of Illinois Beach State Park. In 2003, we observed from the first parking lot at North Point Marina, ~ one mile due north of our normal site. This was due to the road into the usual site being closed for construction. Our observations extended from the last weekend in August through the last weekend in November, occasionally until the first weekend in December.

The recording has been done entirely through volunteers, and thus coverage has not been complete during those time spans. The first two years, some volunteers only recorded the total number of birds and the total number of hours they

were observing. Whenever possible, however, we have recorded our data hourly, including the number of each species, the cloud cover, the temperature, the wind strength (on the Beaufort scale) and direction, and the number of observers (official volunteers – visitors are not included in the data). The last three years, we have done this exclusively. In 2004, we also attempted to record the age, sex or color morph of each bird, where possible.

The first two years, we asked volunteers to man the site whenever the weather conditions looked favorable – typically on west or northwest winds. The last three years, we have asked volunteers to commit to one or more days a week, and to count on those days regardless of weather conditions (rain or heavy snow excepted).

Ensuring the accuracy of the data is the responsibility of the official counter for the day, usually the most experienced observer present. All decisions as to species identification or numbers are made by the counter.

Birds are counted when they cross an imaginary line running overhead from East to West. We attempt to restrict our count to migrants, and usually this is a straightforward process. Birds in the process of migrating are usually quite direct in their flight, whereas local birds typically follow a meandering flight path. With practice, we can also identify local birds (especially Red-tailed Hawks) by distinctive markings or molt patterns.



Adult Bald Eagle in flight. Photo by Mary Kay Rubey

Results

From 2000 through 2004, the hawkwatch at IBSP recorded 30,008 raptors of 15 species. As can be seen from Table 1, Broad-winged Hawks were the most numerous, with 10,332 individuals, or 34.4 % of our totals. Red-tailed Hawks, with 7,975 or 27.5%, and Sharp-shinned Hawks, with 5,127, or 17% are our next two most common species.

When to come?

From a birder's standpoint, one of the main advantages of this sort of detailed record-keeping is that it gives a better idea of exactly when to look for any given species, in order to maximize the chances of spotting them, or observing a large flight. For this purpose, we constructed multiple regression models based on all five years worth of data. In addition, we graphed each species' hourly distribution to better understand what time of day each species is most likely to be observed at, and we graphed each species occurrence by wind direction.