

## **What do we really know about 'our' eagles?**

### **Ice and Eagles in Sauk Prairie**

By Jeb Barzen, Ferry Bluff Eagle Council

Last week I presented evidence that, though eagles congregate in the Sauk Prairie area during winter, the communities of Prairie du Sac and Sauk City are altering that distribution. Eagle locations, described by following eagles with radio transmitters attached to them, were negatively correlated to areas where intensive development exists. Where problems already exist, it is prudent to reduce additional impacts wherever possible if we wish to foster eagle numbers in winter.

Independently, data below suggest a similar conclusion. Members of Ferry Bluff Eagle Council (FBEC) have counted eagles as they have flown into their night time roosts for 18 years. Seven significant roosts are located from Lone Rock to Prairie du Sac. Counts from these roosts monitor total numbers of eagles using our area and they also describe eagle distribution along the river.

When ice is absent from the river, eagles concentrate near Lone Rock. Few eagles use the river stretch from the dam to Ferry Bluff. It is only as ice cover increases dramatically downriver that eagles concentrate in the Sauk Prairie area. As weather varies annually, eagles concentrate in Sauk Prairie as early as mid-December in some years and as late as February in other years. The dynamic relationship between ice cover and eagle distribution suggests two contrasting conclusions: 1) When given a choice (i.e. when the river is ice-free), eagles will not concentrate in the Sauk Prairie area; 2) When ice cover is significant on the river, habitats around Sauk Prairie are critical for maintaining wintering eagles. The first conclusion suggests that disturbances already limit eagle use in Sauk Prairie, a conclusion consistent with radio telemetry data presented last week. The second conclusion emphasizes how important the Sauk Prairie region is to wintering eagles.

Below is the portion of biological assessment presented to the Prairie du Sac Plan Commission and the Prairie du Sac Town Board that is related to ice.

### **Habitat Use through the Winter In Relation To Ice Cover along the Wisconsin River**

Food availability in winter is very important to eagles. The dam at Prairie du Sac is thought to be important because it creates open water where eagles can forage. This importance varies with the severity of each winter. Eagles typically utilize downriver areas (e.g. Lone Rock) extensively early in the winter but not in mid or late winter. Conversely, upriver reaches of the Wisconsin River are used by eagles most in mid or late winter and much less extensively in early winter. From roost count data, when eagle numbers using night roosts near Lone Rock are compared to ice cover downriver, eagle numbers decline as ice cover increases (Figure 1). Conversely, eagle use of upriver roosts (e.g. Blackhawk and Sugar Loaf) increases as eagle use of downriver roosts decline (Figure 1).

From radio-tracking data, individual eagles also shifted from downriver sites to upriver sites as ice cover in downriver areas increased. These data directly demonstrate response to habitat changes as opposed to immigration and emigration of eagles to different locations. When ice cover downriver near Lone Rock became great, individual eagles shifted their habitat use upriver to Ferry Bluff, Black Hawk, and Sugar Loaf Roosts. Black Hawk and Sugar Loaf Roosts are located in the bluffs directly across the river from Sauk Prairie.

Eagle habitat use corresponds closely with food availability as measured through ice cover. Of interest is that, when eagles have a choice, they will not concentrate in the Sauk Prairie area. In winter eagles tend to spread out downriver in less human-populated areas whenever they have a choice. Independent from last weeks article, the shifting of birds from downriver to upriver in relation to ice cover also suggests that disturbances in the Sauk Prairie region are already influencing eagle distribution and care must be taken to avoid increasing this disturbance.

Equally as important, when eagles do not have a choice, they will concentrate in the Sauk Prairie area because open water and other habitat conditions remain available there. Even though the Sauk Prairie area is not used all winter by eagles, the Sauk Prairie area does serve as critical habitat during the coldest periods of winter and likely is key to attracting concentrations of eagles in winter at all.

**Figure 1.** Percent ice cover (bars) in relation to eagle number (Line) upriver in the Sauk Prairie area and downriver in the Lone Rock area over time during the winter of 2002/2003. Eagle number is derived from roost counts conducted by FBEC and ice cover data come from aerial surveys conducted by FBEC during the same time.

