

**What do we really know about our eagles?
Why do Eagles Concentrate in Sauk Prairie?**
By Jeb Barzen, Ferry Bluff Eagle Council

Understanding why eagles concentrate in Sauk Prairie is more complicated than what appears at first glance. Most people believe that eagles come to Sauk Prairie during winter because the Alliant Energy Dam keeps the river ice-free. Though true, this single reason alone does not explain why eagles fail to concentrate at other dams of the Wisconsin River like they do here. Predicting the response of eagles to any environmental change requires both unraveling the relationship between eagles and their habitats as well as understanding the relationship between eagles and human disturbance.

Below is a section of the biological assessment that was submitted to the Prairie du Sac Plan Commission and the Prairie du Sac Village Board to evaluate the potential impact of development proposed by Mr. Ken Nonn along Water Street.

Habitat use data from radio-tracking eagles

Through radio-tracking 17 wild eagles caught during winters of 2001-2003 in the Sauk Prairie area, a total of 1,530 times we estimated eagle habitat use in our study area (Figure 1). The proportions of habitat types used by eagles were equally split between agriculture, forested bluffs, and river-related areas (Figure 2). Open water (i.e. non-frozen) and most of the forested and non-forested wetlands were located in or near the Wisconsin River.

The river-related areas of importance to eagles contain trees along the Wisconsin River and allow the birds to perch and fish from a stationary (i.e. low energy-demanding) location rather than soaring. The river areas located closest to traditional night roosts of the forested bluffs were important habitats. In addition to forested bluffs and river-related forests, the Wisconsin River reach located just downstream of the dam also provided critical habitat for the eagles. Finally, agriculture areas are likely important to eagles as well, however, eagle use of these areas occurred in proportion to their abundance so it is difficult to assess how important agriculture areas are from these data. Developed areas were not used extensively by eagles.

In summary, the river near the dam, forested bluffs near eagle feeding areas on the river, forested edges along the Wisconsin River, and agricultural fields (where eagles safely feed on carrion) are critical habitats for eagles in the Sauk Prairie area during winter.

Habitat use in relation to location along the Wisconsin River

Habitat type alone does not predict eagle use well. Eagles congregate in winter along the Wisconsin River in areas located far from the dam at Prairie du Sac, such as near Lone Rock (Figure 1). Eagles will also concentrate in areas removed from the Wisconsin River such as near the towns of Blackhawk and Leland. Many areas of the Wisconsin River have forested wetlands and undeveloped shores that are good for eagles, such as downstream of Lake Delton, but birds do not congregate extensively there (Figure 1).

Geographic location and the juxtaposition of several types of habitats are equally important in predicting what habitats eagles will use and how they will respond to disturbances. With radio-tracked eagles, the average distance moved each day from night roost to daily feeding area was 4.48 km. Eagles tended to concentrate in winter when forested bluffs, undeveloped forested river edges and open water existed within this average flight radius.

Specifically, these broad habitat features are illustrated by the environs surrounding Sauk Prairie. Within the average foraging distances used by eagles are two communal roosts used at night by eagles (Sugar Loaf and Blackhawk). During the day, eagles use the undeveloped, forested shore of the river that lies near these roosts or the agricultural fields nearby. As described in the third article of this series, these Sauk Prairie environs are even more important when ice cover downstream is extensive. For these reasons habitats immediately surrounding Sauk Prairie, including Eagle Island, are important to wintering eagles. Extreme care should be taken when projects may disrupt such critical habitats.

Figure 1. All locations of 17 eagles radio-tracked from 2001-2004 in relation to habitat type in the Sauk Prairie area. The study area is demarcated by the yellow lines and the towns within this area include Wisconsin Dells, Lake Delton, Portage, Baraboo, Sauk City, Prairie du Sac, Spring Green, Lone Rock, and Plain. A total of 1,530 locations were collected.

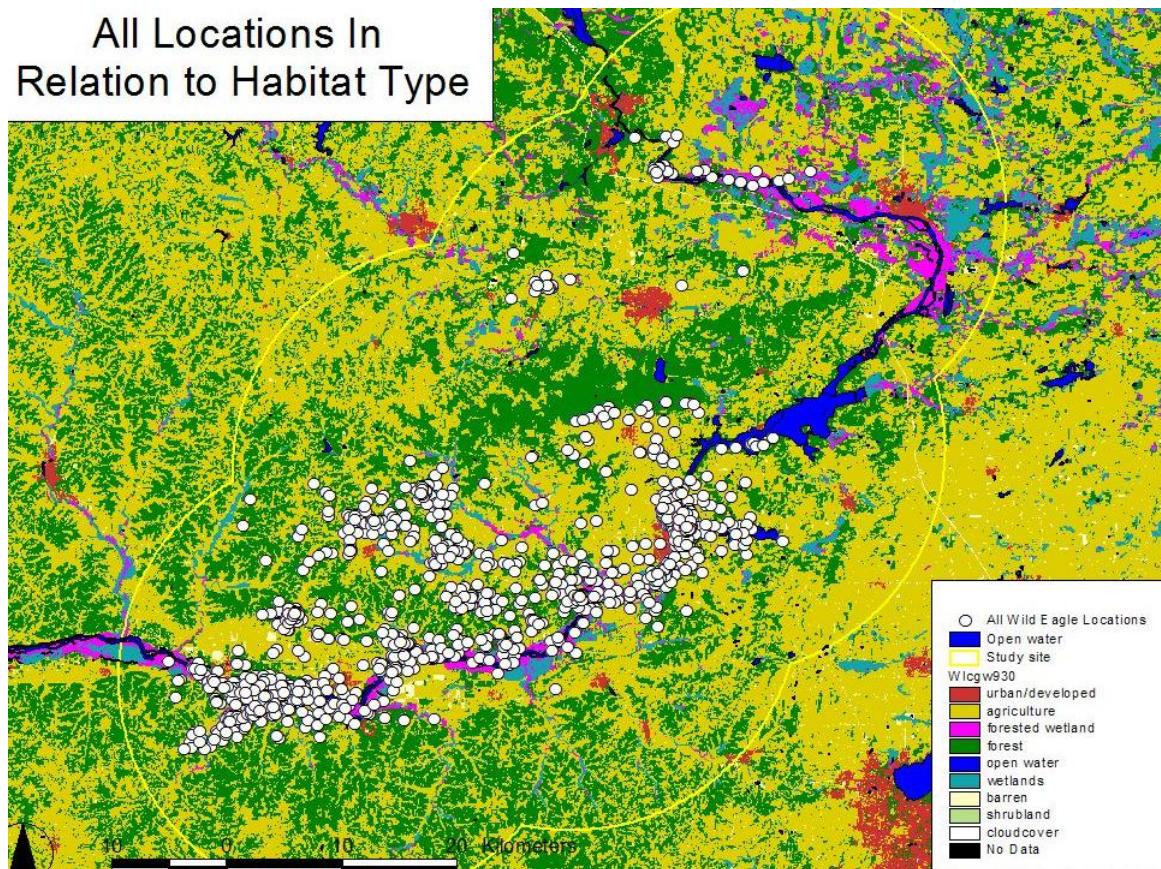


Figure 2. The proportion of habitat types used by 17 radio-tracked eagles in the Sauk Prairie study area. A total of 1,530 locations were obtained from 2001-2004.

