

The Great Lakes and the Bald Eagle

When ice and snow melt in spring, pesticides from the land are often carried by runoff into streams and lakes. Once into aquatic ecosystems, pesticides are absorbed into the tissues of aquatic insects, and the toxins accumulate at each step of the food chain.

One of the animals most affected is the bald eagle (Figure 6). Many threats to the bald eagle reduced its numbers. Early settlers cleared the eagles' nesting trees and hunted the eagles to protect livestock. Industries released toxins into the environment. Eagles eat both live and dead fish. Their prey include large predatory fish (trout, salmon, pike), smaller fish (bass, minnow), amphibians, small mammals, and birds. Eagles live for as long as 25 years, and as top carnivores can accumulate fat-soluble toxins from the food chain. Once in the eagles' bodies, the toxins are not released except through the laying of eggs.

- (m) Why would female eagles have slightly lower levels of toxins in their bodies than male eagles?
- (n) Draw a food web showing the movement of pesticides in a lake from aquatic insects to the bald eagle.



Figure 6

Because of restoration efforts by conservationists, the bald eagle is slowly returning to the shores of Lake Erie.