

Buffer zones for nesting eagles researched

Like humankind, wildlife responds psychologically to disturbances before responding behaviorally. Yet, the dimensions of spatial buffer zones to protect wildlife from disturbances—for example, human activities in public parks—may not exceed distances at which wildlife responds with behavior (such as flight). Camp, Sinton, and Knight (1997. *Wildlife Society Bulletin* 25(3):612-615) used a geographic information system (GIS) and a global positioning system (GPS) to develop spatial buffer zones that included the protection of the view or *viewshed* from six nests of the Golden Eagle in the Phantom Canyon Preserve, Colorado. The recommended buffer zone for a Golden Eagle nest when the birds are rearing young has a 333-meter radius.

In the preserve, such buffer zones for the six nests would have encompassed 145 hectares (358 acres). The additional protection of the viewsheds extended the area of the collective buffer zones to 434 ha (1,072 acres). By creating viewsheds for sensitive species—for example, with vegetation that blocks a species' view of disturbances—natural resource managers may improve the regulation of visitors with trails, access to panoramic views, and tours. A viewshed database with information about the distribution of wildlife can be helpful with the evaluation of effects on wildlife from proposed activities for visitors of a park or preserve.