

AUTUMN AND SPRING RAPTOR MIGRATION THROUGH GLACIER NATIONAL PARK^{TWS}

Richard E. Yates
USDI National Park Service
Division of Natural Resources
Glacier National Park, West Glacier, MT 59916
B. Riley McClelland and Patricia T. McClelland
West Glacier, MT 59916

A raptor migration corridor used by bald eagles (*Haliaeetus leucocephalus*) travelling through Glacier National Park (GNP) was first documented in 1939. In October 1987, we also documented large numbers of golden eagles (*Aquila chrysaetos*) migrating through the park. Intermittent observations of migrating raptors using the Livingston and Lewis Mountain Ranges in GNP continued until, 1994, when more intensive observation began. Volunteer observers using binoculars and spotting scopes, recorded migrating raptors when weather conditions allowed visibility of a main migration route that crossed the McDonald Valley. Observations were standardized to record numbers of birds each minute from 1100 hr to 1800 hr. Raptors traveled between 1,830 m and 3,050 m above sea level using thermals and orographic lift. The entire park appears to be part of a migration corridor that is analogous to a large, braided river of birds flowing in main channels with connecting side channels. Between 1994 and 1996, golden eagles comprised over 80% of all raptors and 92% of all eagles documented in autumns at the McDonald observation point. Peak golden eagle migration in autumn was observed during early to mid-October and in spring, during the third week of March. In October 1996, 137 eagles were counted in a single hour. Total eagles counted in autumn during three years were: (1994) 2,242 in 91 hrs of observation; (1995) 1,991 in 109 hrs; (1996) 2,664 in 162 hrs. Spring totals were: (1995) 870 in 79 hrs and (1996) 904 in 86 hrs. Weather conditions appeared to influence numbers of eagles observed on a given day. Threats to migrating eagles in GNP include numerous unrestricted scenic overflights within travel corridors.