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Predation on nesting waterfowl in the glaciated Prairie Pothole Region

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Abstract: *Increased duck production is a primary goal of management on federal Waterfowl Production Areas and many National Wildlife Refuges in the glaciated Prairie Pothole Region. Considerable effort is expended to manage many of those areas for increased duck nesting success. Predation often reduces the effectiveness of many waterfowl management practices and results in lowered production of young by local waterfowl populations. Recent studies on upland nesting ducks in the Prairie Pothole Region of North and South Dakota show that up to 18 percent of the nesting hens, 20-90 percent of the eggs, and a significant though undetermined number of ducklings are destroyed annually by predators. There is evidence that. predation has increased in recent years as a result of changes in land use practices and predator populations.*

Predation on waterfowl in southern areas of the Prairie Pothole Region is due primarily to mammalian carnivores, principally the red fox, mink, striped skunk and raccoon. At times, however, other predators may be locally important including the badger, coyote, long-tailed weasel, Franklin's ground squirrel and certain avian species such as the great horned owl, crow, and California gull and ring-billed gull. Data are substantial concerning losses of dabbling duck hens and eggs but little is known about duckling losses. Dabbling ducks are most seriously impacted by the red fox and striped skunk. The fox is a major predator of nesting hens and is also an important egg predator. The skunk preys nearly exclusively on duck eggs. From what is known, diving duck predation is mostly by mink and raccoons. The mink is believed to be a serious predator in wetlands on nesting hens and probably on ducklings of all species, whereas raccoons prey primarily on eggs.

It is a basic premise of wildlife management that populations can be influenced through manipulation of factors affecting reproductive success and mortality; there is ample evidence that reproductive success of ducks can be high in situations where predation is reduced. Development of sound, acceptable predator management practices will make it possible to increase duck production substantially on many of the 600.000 acres of habitat owned by the Fish and Wildlife *Service in-the glaciated Prairie* Pothole *Region.*

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