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FISH AND WILDLIFE SERVICE

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U.S. AND CANADA RELEASE PRELIMINARY FINDINGS OF STUDY ON STABILIZED DUCK HUNTING REGULATIONS

The U.S. Fish and Wildlife Service and the Canadian Wildlife Service have released preliminary findings of a 5-year study of the relationship between duck populations and duck hunting regulations.

The study, conducted jointly by the two Federal wildlife agencies along with State and Provincial agencies, sought to clarify this relationship by examining duck populations and harvests from 1979-85. During this time, duck hunting season lengths and bag limits were maintained at the level established for the 1979-80 hunting season. The program ended with the 1984-85 waterfowl hunting season.

The study was designed to provide a better understanding of duck breeding populations, availability of breeding habitat, nesting success and production, hunter activity and success, and annual and seasonal survival rates. Previous to the study, duck hunting regulations were changed annually in response to changes in the yearly status of duck habitat and populations. These annual changes made it difficult for waterfowl managers to interpret the effects of these factors on duck populations.

The ultimate goal of this study was to evaluate the factors that appear to be most important in regulating duck populations and to determine management actions needed to ensure adequate duck populations in the future.

Much of the data need further analysis, and no major changes to this year's waterfowl hunting regulations will be proposed on the basis of these preliminary results. This year's regulations will be established through normal procedures, following analysis of annual surveys of breeding populations, habitat conditions, and duck production.

The investigations focused primarily on mallards breeding in the prairie-parkland region of Central Canada and the North Central United States and wintering in the Mississippi Delta, but data also were examined for other duck species and other areas in North America. The study period coincided with a severe drought in major duck breeding areas of the United States and Canada and with record low numbers of important duck species such as mallards and pintails.

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Among the findings of the study were the following:

o Breeding populations of mallards, blue-winged teal, and pintails declined dramatically during the stabilized regulations period. Drought on prairie-parkland breeding areas had a strong effect in limiting production in some years.

o Traditional breeding areas, particularly in Prairie-Parkland Canada, have experienced lasting adverse changes in habitat quality, raising concerns that ducks will not be able to rebound as quickly as in the past following periods when their populations have dropped because of drought or other adverse breeding conditions.

o The number of ponds available in Prairie-Parkland Canada did not have the same influence on the distribution of duck breeding populations as in the past. Formerly, waterfowl managers assumed that when wet weather made more ponds available in key breeding areas, ducks would use them. During the stabilized regulations period, increased numbers of ponds were not alone sufficient to ensure increased duck use. While ducks still reproduce better in years when there are more ponds, recent evidence indicates that production potential in Prairie-Parkland Canada has been reduced. In many areas, lack of quality upland nesting cover is becoming a critical factor for duck production. In addition, for the first time in 1979 and 1983, good duck production was not followed by increases in the size of the breeding population the following year. The reason for this is not yet fully understood.

o Destruction of nests and losses of hens to predators have an important and perhaps dominant influence on the ability of some duck populations to sustain themselves. Overall nesting success was low for mallards in the mid-continent areas studied, contributing to poor production during most of the stabilized regulations period. Increased losses from predators are associated with loss of nesting habitat, because remaining habitat tends to be preserved in broken-up sections or "islands" that concentrate predators.

o Previous studies had failed to show a strong relationship between harvest and survival rates for mallards on a continent-wide basis. The results of the stabilized regulations study provide evidence that harvest rates may have adversely impacted survival of male mallards in recent years. Therefore, the present low population levels support a conservative view that recent harvest rates were high.

o Special banding studies of seasonal survival rates for mallards revealed that death rates for males are higher during hunting season and much lower during breeding season than for females. Females are subjected to substantial mortality in both the breeding and hunting seasons. Female mortality is due primarily to predation during spring and summer, whereas hunting was the major documented cause of death for hen mallards wintering in the Mississippi Delta.

o Harvest in the U.S. remained relatively stable even when there were fewer ducks, supporting the need for conservative hunting regulations during years of low populations.

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The issue of whether stabilized duck hunting regulations should be adopted by the U.S. again in the future will be examined by the Fish and Wildlife Service as part of a new supplemental environmental impact statement on migratory bird hunting now in preparation. A draft of this document is expected to be available for public comment in June 1987.

A paper summarizing management implications from the studies to date was presented jointly by the U.S. and Canadian wildlife agencies at the North American Wildlife and Natural Resources Conference in Quebec, Canada, on March 24. Copies of this paper and other information on the study results are available from the Office of Migratory Bird Management, U.S. Fish and Wildife Service, Room 536 Matomic Bldg., Department of the Interior, Washington, DC 20240.

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