



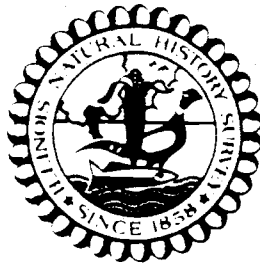
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ILLINOIS NATURAL HISTORY SURVEY



CENTER FOR WILDLIFE ECOLOGY

Illinois Forest Game Investigations

W-87-R-13

Quarterly Report

by

Charles M. Nixon, Terry L. Esker, and John Kube
Illinois Natural History Survey

1 July through 30 September 1990



QUARTERLY FEDERAL AID PERFORMANCE REPORT

Illinois Forest Game Investigations

W-87-R-13

Charles M. Nixon, Illinois Natural History Survey, Champaign
Terry L. Esker, Illinois Natural History Survey, Timewell
John Kube, Illinois Department of Conservation, Springfield

1 July through 30 September 1990

Study No. 1; Title: Population Dynamics of the Illinois Deer Herd.

Job 1-A; Title: Population dynamics of the Illinois deer herd--harvest analysis and current status.

County and regional sex and age summaries of the 1989 firearm harvest were transferred from computer tape to 3.5" disks and submitted to the IDOC during the quarter.

Models of deer population dynamics were prepared for groups of counties arranged into 9 deer regions for the period 1980-1989. These models indicate regional deer herds have nearly doubled since 1980. Increases are most evident in the intensively farmed east-central and northeastern regions, where deer densities were estimated at nearly 1 deer per 5 acres of forest in 1989. The 1989 statewide prehunt population was estimated at about 539,000 deer.

This progress report may contain tentative or preliminary findings. It may be subject to future modifications and revisions. To prevent the issuing of misleading information, persons wishing to quote from this report should obtain permission from the project leader.

Job 1-B; Title: Estimates of regional doe natality rates, fawn recruitment, and yearling-adult survival.

Radio-marked deer were monitored for survival and movement in Brown-Adams (west-central) and Dekalb (northern) counties during the quarter. No marked deer were known to have died during the quarter (radio-marked deer with mortality sensitive switch = 19 in Brown-Adams counties, 4 in Dekalb County; Ear tagged or collared = 36 in Brown-Adams, 20 in Dekalb).

Periodic spotlight surveys were used on both study areas to locate marked deer and their companions. Fawn:doe counts were made for each complete family unit seen during the quarter (both marked and unmarked does) to assess natality and fawn rearing success.

Job 1-C; Title: Rural landowner attitudes toward deer and IDOC deer management.

A preliminary summary of landowner response to the 1990 questionnaire was prepared and submitted to the IDOC. The results of the 1989 and 1982 landowner surveys were submitted to the Department of Rural Sociology, University of Illinois, for a detailed analysis of factors affecting landowner response to each questionnaire.

Job 1-D; Title: Data analysis and reporting.

Nixon presented written and oral testimony in support of a proposed change in archery hunting regulations on Rock Cut State Park, Winnebago County.

The annual report for the W-87-R-12 segment was prepared and submitted to the appropriate funding agencies.

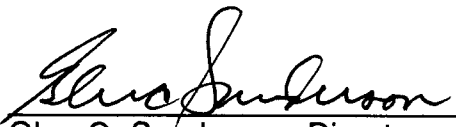
A manuscript titled "Longevity of female white-tailed deer on a refuge in Illinois" was submitted to the Transactions of the Illinois Academy of Science.

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DATE: 30 September 1990

