

**RUFFED GROUSE
MANAGEMENT SYSTEM
AND DATABASE**

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PART I. - GROUSE MANAGEMENT SYSTEM

INTRODUCTION

The primary purpose of this document is to describe the system which is to be used by Maine Department of Inland Fisheries and Wildlife (MDIFW) biologists to make grouse management recommendations. Included are the process to translate data into management decisions (Part I) and techniques to estimate various grouse population parameters (Part II). A goal of the current management system was outlined in the 1985 grouse assessment.

This document does not address social, political, or economic questions related to grouse management. Such questions should be raised in the revision of the grouse assessment.

REGULATORY AUTHORITY

Actual management of the grouse resource is limited to regulating season length within the framework of Maine's inland fisheries and wildlife laws. Chapter 709, Section 7455 states that the open season on grouse shall not extend any later than November 30th in any calendar year in Wildlife Management Units (WMU's) 1 and 2, nor any later than December 10th in WMU's 3-8 (Appendix I).

MANAGEMENT GOALS AND OBJECTIVES

A goal and objectives for grouse management were established in 1985 and 1986 to guide grouse management in Maine through 1990. The goal and objectives were defined through recommendations made to DTDIFW by a game bird working group comprised of several representatives of the public and approved by the Commissioner and the Advisory Council.

MANAGEMENT GOALS

Maintain grouse population at 1985 levels.

MANAGEMENT OBJECTIVES

Abundance Objective

Maintain (fall) grouse populations at or near 1.5 to 2.0 million birds.

Harvest Objective

Maintain harvest and hunter numbers at or near 1985 levels, and extend hunting season to December 15.

MANAGEMENT DECISION PROCESS

Current management decisions relate primarily to establishing grouse hunting season dates, lengths, and bag limits while maintaining harvests and hunter numbers at or near 1985 levels. Extension of the grouse season beyond November 30th in WMU's 1 and 2 and beyond December 10th in WMU's 3-8 would require legislative action.

The following sections describe the decision process, the input criteria to the decision process, and the management options which may result.

Decision making

There is no year-to-year data collection or decision making process in effect. The 1985 Ruffed Grouse Assessment indicated that the projected harvest by 1990 would be 475,000 birds which is well below the projected allowable harvest of 793,500 birds. Therefore, the management posture has been to reevaluate the status of grouse every 5 years when the species management plans are compiled.

Criteria for Decision Making

Is the grouse population on target? This question is addressed every 5 years for the species management plan update. It is not addressed on an annual basis.

Supporting Criteria

Data that could be used in a management system are those collected on white-tailed deer pellet count survey lines (Appendix II).

Management Options

Some potential management options include:

Management Option I

Select traditional October 1 opening date, current season length, and 4 bird bag limit.

Management Option II

Select season and/or bag limits that are more restrictive than current conditions when warranted.

Management Option III

Increase statewide season length to December 15 (legislative action).

CHRONOLOGY OF GROUSE MANAGEMENT ACTIVITIES

The chronology of events in the grouse management system is limited. Periodic review of the grouse resource and its habitats occur every 5 years during MDIFW species plan updates. Based on limited data, and the belief that the grouse resource is underutilized over most of the state and that harvests have little impact on the population, large-scale inventories of populations and harvests are no longer conducted.

Public hearings are generally held only when changes to the previous grouse season are proposed.

PART II. - GROUSE MANAGEMENT DATABASE

GROUSE DATA COLLECTION SUMMARY

Grouse Harvest Data

Currently, MDIFW collects no data on grouse harvests. Historically, the only information available on harvests and hunter numbers was the MDIFW Hunter Questionnaire. Estimates of hunter numbers, success rates, and harvests by WMU were generated annually through 1984. For more information on grouse harvests and hunter effort, see the Ruffed Grouse Assessment - 1985.

Grouse Population Data

The only annual source of information available is collected during the spring white-tailed deer pellet counts (Appendix II). These data include the number of grouse flushed and/or heard drumming along each pellet count survey line. These data have never been used in the management decision making process.

In addition, surveys of grouse drumming activities are conducted at 5-year intervals on State-owned Wildlife Management Areas where grouse habitat management techniques are demonstrated. Again, these data have not been used in the decision making process.

Habitat Evaluation

Five-year Evaluation

Habitat conditions are reevaluated every 5 years as part of the planning update. These data, combined with estimates of grouse densities by habitat types (from results

reported in the literature), are used to generate estimates of grouse populations (see Ruffed Grouse Assessment - 1985). USFS forest inventory data is the source of habitat information (Appendix III).

GROUSE MANAGEMENT SYSTEM REVIEW

A brief list of action items has been developed identifying components of the current management system which need to be addressed.

System Inputs

- Develop an adequate survey to estimate annual grouse hunter effort and harvest.
- Obtain legal authority to regulate grouse seasons and bag limits.

LIST OF APPENDICES

- I. Wildlife Laws - Ruffed Grouse
- II. Deer Pellet Count Survey Forms
- III. Maine Ruffed Grouse Management Plan
- IV. Grouse Population Estimation

APPENDIX I. WILDLIFE LAWS – RUFFED GROUSE.

STATE OF MAINE
INLAND FISHERIES AND
WILDLIFE LAWS

12 MRSA PART 10
CHAPTERS 701-721
AS ENACTED BY PUBLIC LAW,
CHAPTER 420, SECTION I
AND AS AMENDED

[EFFECTIVE SEPTEMBER 29, 1987
UNLESS OTHERWISE NOTED]

2. **Repealed 1979, c. 543, §42.**
3. **Repealed 1979, c. 543, §42.**
4. **Advanced preparation for trapping beaver.** A person is guilty of advance preparation for trapping beaver if he makes any advance preparation on the trapping grounds for the taking of beaver prior to the open season on beaver.
5. **Nonresident trapping beaver.** A nonresident is guilty of illegally trapping beaver, notwithstanding any other provision of the law, if he traps beaver in this State.

1979,c.543,§42. 1979,c.732,§§10,31.

§7455. Birds

The open season on hunting partridge shall not extend any later than November 30th in any calendar year, in Wildlife Management Units 1 and 2, nor any later than December 10th in any calendar year in Wildlife Management Units 3, 4, 5, 6, 7 and 8, except as provided in subsection 1.

1. Open and closed season. Whenever a section or sections of the State are closed to hunting by proclamation of the Governor during the open season on birds, the commissioner, after the proclamation has been annulled, with the consent of the Governor, may extend the open season for bird hunting in that section or those sections of the State for a period not to exceed the number of days lost.

1983,c.69. 1985,c.369,§19. 1985,c.718,§9.

§7456. Prohibited acts relating to birds

1. Illegal use of migratory game birds. A person is guilty of illegal use of migratory game birds if he hunts, possesses, transports, buys or sells any migratory gamebird, except in the manner and numbers, and by the means specifically permitted by regulations of the United States Federal Migratory Bird Treaty Act, Public Law, July 3,1918, chapter 128, as amended, or by rules promulgated by the commissioner in conformity with the Maine Administrative Procedure Act, Title 5, Part 18, except section 8052, subsection 3 of that Act.

2. Hunting waterfowl on Haley Pond. A person is guilty of hunting waterfowl on Haley Pond if he hunts any waterfowl on Haley Pond in the Town of Rangeley and Dallas Plantation in the County of Franklin.

APPENDIX II. DEER PELLET COUNT SURVEY FORMS.

REGIONAL PELLET GROUP COUNTS

REGION _____ DATE _____ COURSE HEADINGS & MAP _____
 WORKER _____
 TRATUM _____ TIME END _____
 BLOCK # _____ TIME START _____

PLOT NO.	COVER TYPE	NO. DEER PELLET GROUPS	IN DWA	MOOSE PELLET GROUPS	NO. GROUSE	COVER TYPE	NO. DEER PELLET GROUPS	IN DWA	MOOSE PELLET GROUPS	NO. GROUSE	SUMMARY		
											Total Pellet Groups Found =	Plots	No. Pellet Groups
28													
29													
30													
31													
32												S	
33												SH	
34												HS	
35												H	
36												O	
37												OF	
38												AG	
39												DEV	
40												W	
41													
42													
43													
44													# Plots in DWA=
45													# Dead Deer Encountered=
46													(give details)
47													
48													
49													
50													
51													
52													
53													
54													

GF = grouse flush
 GD = grouse drumming

APPENDIX III. MAINE RUFFED GROUSE MANAGEMENT PLAN.

MAINE RUFFED GROUSE MANAGEMENT PLAN

1985

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April 15, 1986

APPENDIX IV. RUFFED GROUSE POPULATION ESTIMATION.

The most recent statewide population estimate for grouse was based on 1980 forest inventory data coupled with data on the number of drumming male grouse/unit area of habitat as reported in the literature. These density figures were then extrapolated over each Wildlife Management Unit by forest type and stand size to derive density estimates for male grouse. For the purpose of the species plan, it was assumed that there is a spring adult sex ratio of 1:1. Furthermore, during average production years, the ratio of armatures to adults approximates 1:1 as well. Therefore, the estimated total fall population can be generated by multiplying the number of adult male grouse by 4. The 1985 fall grouse population was estimated at 1,755,700 birds. For more information on grouse population estimation, see the 1985 grouse plan.