

MAINE'S GAME PLAN *for deer*

A PLAN TO INCREASE MAINE'S NORTHERN, EASTERN AND WESTERN DEER HERD



Photo by Paul Vitucci

The Maine Department of Inland Fisheries and Wildlife
in collaboration with its outdoor partners

March 2011

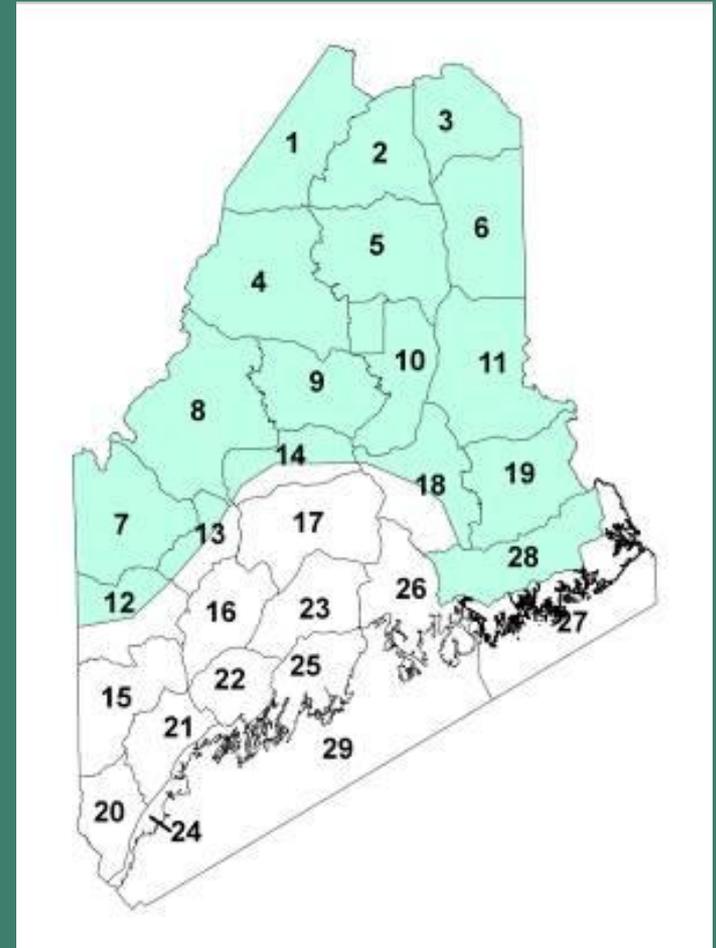


www.mefishwildlife.com

- History of Deer in Maine
- Factors Suppressing Deer Numbers
- Setting Realistic Expectations
- 5 Elements to the Plan
- Questions

Deer Population in NEWME is Very Low

- Below IF&W's publicly-derived G&O
- Below desires & expectations of hunters, guides, outfitters, business owners in rural ME, & those who enjoy watching deer
- Having negative impact on economy



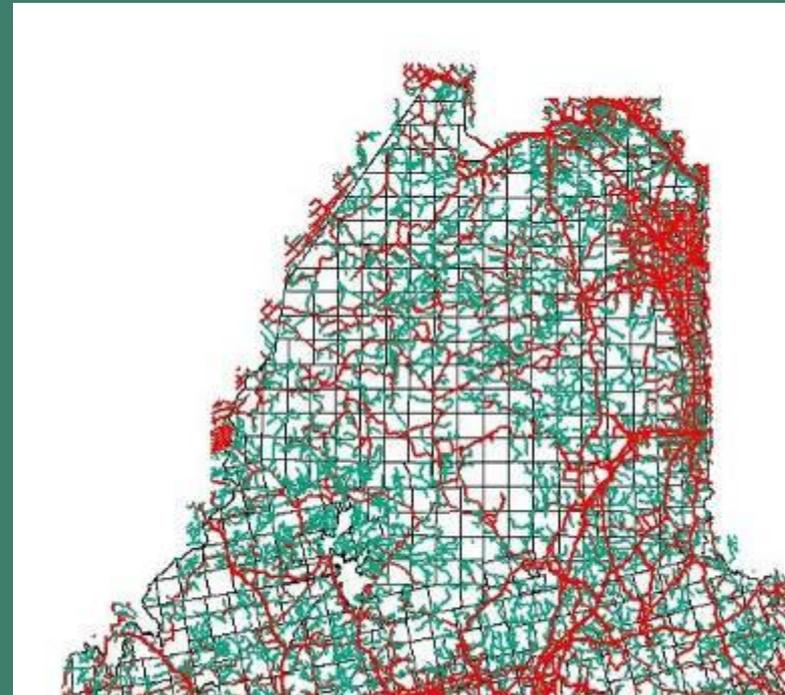
Changes in the Past 40-50 Years: Dramatic Effects on Deer Habitat

- 1975 – 1988 severe outbreak of spruce budworm
- 8-9 million acres of spruce-fir affected
- Intensified timber harvests
- 1970s – global demand for wood / improvements in harvesting technology
- Landownership patterns also changed since 1970s – gone are the days of a few private landowners
- Recent trends: increase in harvested acres, increased frequency of land sales, smaller land ownerships, reduction in size of clearcuts from FPA
- Result - reduced quantity & quality of deer wintering habitat



Changes in the Past 40-50 Years: Roading of the North Woods

- 1975 – ban on river driving of timber
- 1980's - spruce budworm and salvage logging across the landscape
- 1990's Forest Practices Act – reduced clearcutting, increased forest operations into greater area of the landscape
- Forest is more open and more accessible than any time in modern history
- By 1996 >25,000 miles of forest roads surpassing the state public highway system!
- Result – considerably expanded road access for hunting and increased hunting pressure



Changes in the Past 40-50 Years: At the Same Time Forests Were Changing....



- Eastern coyote emerged as a new predator
- Superb opportunists, coyotes prey upon healthy deer of all ages particularly in winter
- Coyotes join a long list of predators which compete for newborn fawns – bear, fox, bobcat, fisher, free-roaming dogs
- Effects of development, road-kills, and illegal kills have also influenced Maine's deer population over the years

Factors Suppressing Deer Population in NEWME

- Winter Severity
- Diminished number and quality of DWAs
- Predation
- Other mortality factors
 - illegal hunting,
 - improper winter feeding,
 - vehicle collisions
- No single factor is responsible for low deer numbers



Concern Over Low and Declining Deer Populations



Photos Courtesy of U.S. Fish & Wildlife Service



- Intensifying for 20 years
- 1993 – Downeast Deer Committee
- 1999 – Big Game Working Group [12 months]
- 2007 – Northern & Eastern Maine Deer Task [8 meetings; 30 hours]
- 2008 – Deer Predation Working Group [5 meetings; 20 hours]
- Recommendations from these initiatives guide MDIFW's deer management program

Setting Realistic Expectations

- No one is to blame for herd declines
- Rebuilding Maine's deer herd will be challenging
- Deer decline has been developing gradually over many years
- It will take many years to improve
- Significant progress will depend on increasing the amount and quality of deer wintering habitat.
- Will require collective efforts and resources of many: MDIF&W, legislature, sportsmen's groups, guides and outfitters, landowners, and interested individuals



Maine's Game Plan for Deer

5 Elements

1. Deer Wintering Habitat and Winter Severity
2. Deer Population Management
3. Predation
4. Deer Planning and Public Involvement
5. Information and Outreach

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Maine's Game Plan for Deer

- Builds on MDIF&W's *White-tailed Deer Management System and Database*
- Builds on recommendations of Northern and Eastern Maine Deer Task Force [2007]
- Builds on recommendations of Deer Predation Working Group [2008]
- Most strategies are not new but are being refocused or intensified.
- Each element is critical and there is no single strategy that will increase deer numbers
- Achieving an increase will require successful implementation of the strategies that span each of the 5 elements

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Element 1

Deer Wintering Areas and Winter Severity



- Maine whitetails at northern end of range - - - this really matters!
- WINTER SEVERITY exerts one of the biggest influences on deer survival
- Deer are not well adapted at eluding predators in deep snow, on crusted snow, or on glare ice
- Deer are not well adapted to foraging in deep snow
- Winter losses can range from 10% in a moderate winter to 30% or more in a severe winter
- 3 of the most severe winters of the past 60 years - 2001, 2008, and 2009

Winter Impacts to Deer



- Dormant woody browse mostly available
 - Poorly digested
 - Only slows weight loss
- Increased snow depths reduce mobility and increase energetic demands
 - Home ranges are reduced
 - Food intake decreases
 - Mobilize fat and muscle reserves
- Conserve energy
 - Migrate to deer wintering areas [critical to surviving the rigors of winter]
 - Form aggregations-develop trail system

Winter Impacts to Deer



- Fawns at increased risk
 - Reduction in harvest of yearlings the following year
- Rut-weary bucks at increased risk of mortality
- Does – reduced body condition
 - Affects next fawn crop [lower body weight – reduced survival]



Monitoring Winter Severity



- Biologists have been monitoring winter conditions since 1950s
- Currently monitor 26 stations throughout the state from Dec - April
- Weekly Temps
- Snow Depth
- Sinking Depth
- Snow profile characteristics [powder, granular, crust]

Deer Wintering Areas “Deer Yards”

**Typically SW stands
[spruce, fir, cedar]**

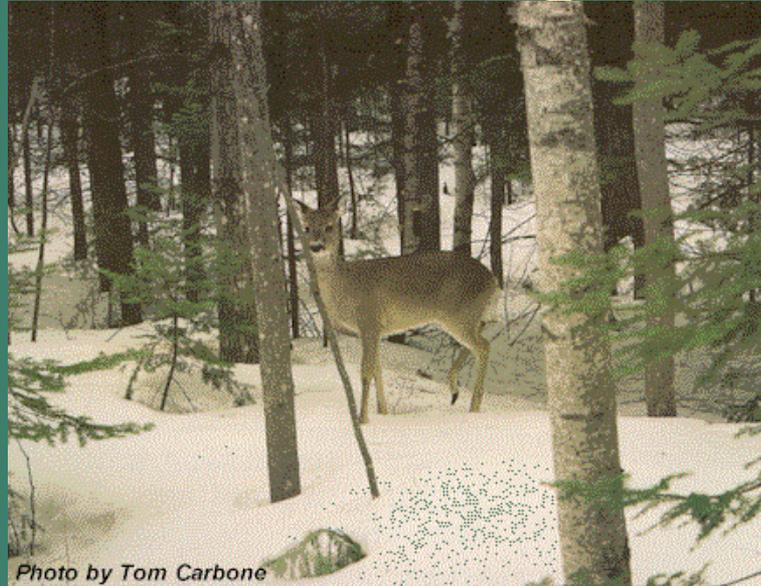
>70% canopy closure [best]

>35' height

Interspersed with hardwood inclusions for forage

Most located along lakes, ponds, wetlands, rivers, streams

Deer Wintering Areas



- Deer use of DWAs is historic and traditional – 50 years or more
- During a winter of average severity, a deer in northern Maine will seek shelter in a DWA for a period of 90-125 days
- Wintering areas, along with stored fat reserves, are essential for survival
- Intercept snow / lessen wind effects / higher ambient temperature
- Use of DWAs reduces energy expenditures and weight loss – reduces losses to malnutrition, predation, and minimizes fawn losses due to poor condition of does in late spring
- Lower snow depths allow deer to create and maintain trails to access food and winter shelter and to avoid predation

Deer Wintering Areas

- Estimates suggest DWAs may have declined by $>50\%$ since the late 1960's.
- As much as 80% of historically known DWAs have been rendered unusable by deer due to excessive timber harvesting, and/or degradation of the overstory by the spruce-budworm outbreak of 1970-88.
- Deer are a public resource BUT live on private lands.



Strategies to Address Element 1: DWAs and Winter Severity

- Continue efforts to ID active DWAs
- Continue to work with landowners to manage DWAs [$\sim 300,000+$ acres to date]
 - implement DWA Management Guidelines,
 - cooperative management / agreements,
 - acquisition,
 - plan agreements / zoning
- DWA Management on State lands [MDIF&W 8,700 acres; BP&L 29,000 acres]
- Promote “current-use” tax programs
- Involve partners and work to identify additional incentives to encourage greater
- DWA management programs / workshops
- Food plots and habitat management
- Reviewing progress – NEMDTF meets at least annually



Element 2

Deer Population Management



- Managing deer wintering habitat
- Managing mortality
- In a nutshell -- Deer population management is all about DOE population management.

Annual Mortality Influenced By

- Hunting
- Poaching / Wounding Loss
- Predation
- Vehicles
- Accidents
- Winter Losses
- Disease
- Habitat Limitations
- Improper Winter Feeding
- Varies by sex and age and may change annually



Strategies to Address Element 2: Deer Population Management



- Biological data collections
- Research
- Road mortality / winter feeding
- Increase LE efforts to target illegal killing
- Work with legislature to increase penalties for illegal killing of deer.
- Deer hunter effort surveys
- Monitoring winter severity
- Chronic Wasting Disease [CWD] monitoring
- Identifying areas of high road mortality
- Additional funding for deer management
- Reviewing progress – NEMDTF meets at least annually

Element 3: Predation

- Deer comprise a significant portion of coyote diets in Maine particularly during winters and spring pupping period.
- Coyotes are also an important component of newborn fawn deaths in summer.
- Effects of coyote predation are most damaging where:
 1. DWA habitat severely reduced,
 2. winters tend to be severe, and
 3. alternate prey for coyotes is less available.
- Coyotes join a long list of predators on newborn fawns: black bear, red fox, bobcats, fisher, and free-roaming dogs.
- Across North America, bear predation can account for 20%-60% of fawn mortality.



Strategies to Address Element 3: Predation



- Increase efforts to achieve focused coyote control.
- Increase success in deploying coyote hunters to predation sites.
- Seek funds to achieve sustained coyote control.
- Consider ways that annual hunting and trapping harvests could be used to stabilize the bear population.
- Continue to lobby the USF&WS for ITP for trapping program.

Element 4

Deer Planning and Public Involvement



- Public participation in goal setting since early 1970s
- 1999 Big Game Working Group – goals for deer 2000-2015
- Deer are public resource but live on private land
- Society must determine:
 1. Result it desires
 2. Effort it will undertake
 3. Effort / cost to be borne by landowner and what, if any, society will bear.

Public Sets Management Direction

Managing Deer – A Balancing Act

What the
Public
Wants



Biological
Reality –
What the
habitat
can hold

Affected by population changes over time beyond our control [severe winters, disease, hunter participation, land access].

Strategies to Address Element 4: Deer Planning and Public Involvement



- Convene a Public Working Group in 2015 to update deer population goals and objectives.
- Ensure all stakeholder groups participate.
- Ensure goals and objectives are fully vetted to broader society.
- Continue to refine *Maine's Game Plan for Deer*
- Determine applicability and feasibility of integrating marten and lynx models with forest yield models to inform landscape management [Super Species Planning Effort]

Element 5

Information and Outreach

Tools to keep you “up to speed” on deer management and progress in deer rebuilding efforts

Print Media

Video

YouTube

Facebook

Website



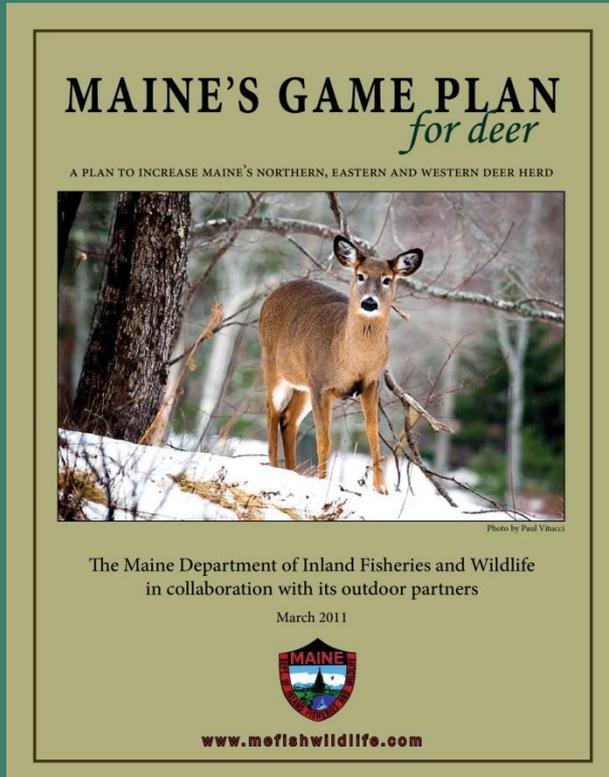
Twitter

Online Magazine

GovDelivery

Department Blogs

Strategies to Address Element 5: Information and Outreach



Public understanding of and continued support for *Maine's Game Plan for Deer* is essential for it to be successful.

MDIF&W will enhance it's public outreach on 4 fronts:

1. Many aspects of deer management
2. Factors suppressing deer numbers
3. Efforts and progress in rebuilding the deer herd
4. Ways concerned individuals and groups can improve deer habitat and help in deer rebuilding efforts

If we are to succeed WE MUST ALL WORK TOGETHER to implement *Maine's Game Plan for Deer*.

For More Information:

**www.maine.gov/ifw/
or
www.mefishwildlife.com**

***Individually, each of us can do
only a little.
Together, we can save the world.***

-- Denis Hayes --

Thank you for your interest in rebuilding Maine's deer herd!