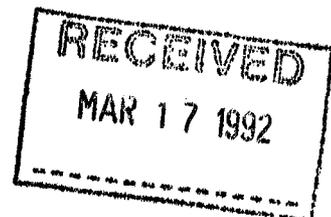


1636-1070

RHODE ISLAND  
GENERAL ASSEMBLY

report of the

**Commission to Study the Feasibility of  
Prohibiting Certain Weapons for Deer Hunting  
RES. 90 - H9688 Sub A**



January 17, 1992

1636-1070 Sp Rept #1408

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To the Honorable General Assembly of the State of Rhode Island and Providence  
Plantations:

Enclosed is the final report of the Special Legislative Commission to Study the  
Feasibility of Prohibiting Certain Weapons for Deer Hunting. This Special Legislative  
Commission was created by Resolution 90-H9688 SubA passed by the 1990 session of  
the General Assembly. The Commission members are sincerely grateful for all those who  
appeared before the Commission to present their testimony and recognizes their efforts  
in compiling this report.

Respectfully Submitted,

Representative Michael Zanni  
Chairman

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## INTRODUCTION

The Commission to Study the Feasibility of Prohibiting Certain Weapons for Deer Hunting was established to study the issue of deer hunting in Rhode Island, including but not limited to, the environmental, financial and economic impact of prohibiting deer hunting by archery.

Committee member, former representative Irving Levin, on behalf of the Friends of Animals, Inc., introduced the legislation with the intent of making a recommendation to the General Assembly for use in future sessions as this issue has come before the legislature repeatedly.

At the initial meeting of the commission, officers were elected and an organizational format was established allowing for committee members and their selected expert witnesses in favor of prohibiting archery deer hunting, to testify at the next hearing.

However, the proponents of the prohibition failed to appear at their designed time and, therefore, no testimony was taken. Rep. Zanni, chairman, Rep. Lafayette, vice chairman and Rep. Kennedy, secretary, expressed their dismay and bewilderment and apparent insult to the Commission and General Assembly. Rep. Lafayette reiterated the charge of the Committee and its adherence to the established format and continued testimony as originally planned.

The Commission met for four additional times, accepting written and oral testimony and discussed the format of the final report.

As the attendance record and minutes attest, no testimony was given by proponents of the prohibition at any of the scheduled Commission hearings. The proponents offered for submission a "Minority Report" which was taken into consideration at the sixth meeting. The report was not accepted, because it failed to comply with standard parliamentary procedure and the rules established at the first meeting relating to submittal of oral and written testimony.

Complete copies of the Commission's report are available in the Office of the Speaker and the State House Library.

## EXECUTIVE SUMMARY

The Commission to Study Prohibiting Certain Weapons for Deer Hunting was established by passage of 90-H9688 Sub A to investigate the financial, economic and environmental impact of prohibiting archery hunting for deer. Former Representative Irving Levin, who introduced the legislation, intended for the Commission to provide insight on the issue of archery deer hunting as similar bills had come before prior assemblies.

The Commission consisted of members from the General Assembly, Department of Environmental Management (DEM), the Rhode Island Veterinary Medical Association, Animal Humane Associations and the public.

Proponents of the weapons prohibition failed to appear to testify on their behalf and neglected to appear at subsequent hearings. Seven Commission members signed and offered for submission, a "Minority Report," which was not accepted by the Commission at its sixth meeting in keeping with the rules promulgated at the first meeting and in accordance with standard parliamentary procedure.

The Commission continued in its efforts to provide expert witnesses and take oral and written testimony in preparation for a final report.

The Commission concluded that:

- Deer are a common and abundant species in Rhode Island
- DEM Division of Fish and Wildlife has a legal mandate for their management
- Bow hunting has been an integral part of deer management in Rhode Island
- The Rhode Island Hunter Safety Program has been recognized as one of the best internationally
- Bow hunting is essential in areas where the discharge of firearms is prohibited
- Bow hunting is safe and effective
- Bow hunting represents an \$800,000 economic impact to the State of Rhode Island
- Alternatives to bow hunting, when other weapon choices are not available, are ineffective, economically unfeasible and environmentally damaging to deer health and associated ecosystem.

The Commission recommends to the General Assembly that bow hunting as a method of hunting deer in Rhode Island be continued as currently mandated by State Statute.

The report was prepared by Commission member Ms. Lori Suprock.

After review of all testimony, and submitted statements and other evidence, the commission hereby makes the following findings of fact:

## **A. ENVIRONMENTAL ASSESSMENT**

### **1) Legal Authority as it appears in Rhode Island General Law:**

42-17.1 An Act Establishing the Department of Environmental Management.

**20-1-1. Legislative findings.--** The general assembly finds that the animal life inhabiting the lands of the state, its lakes, ponds, streams, and rivers, and the marine waters within its territorial jurisdiction, are precious, renewable, natural resources of the state which through application of enlightened management techniques, can be developed, preserved, and maintained for the beauty and mystery that wild animals bring to our environment. The general assembly further finds that the management of fish and wildlife through the establishment of hunting and fishing seasons, the setting of size, catch, possession, and bag limits, the regulation of the manner of hunting and fishing, and the establishment of conservation policies should be pursued utilizing modern scientific techniques, having regard for the fluctuations of species populations, the effect of management practices of fish and wildlife, and the conservation and perpetuation of all species of fish and wildlife.

**20-2-1. Authority over fish and wildlife -** The general assembly hereby vests in the director of the department of environmental management authority and responsibility over the fish and wildlife of the state and, together with the marine fisheries council as hereinafter set forth, over the fish, lobsters, shellfish, and other biological resources of marine waters of the state.

### **2) Professional Status of Authoritative Agency**

John Stolgitis, chief of the Division of Fish and Wildlife testified that the Department of Environmental Management Division of Fish and Wildlife is comprised of professional biologists, utilizing policies and philosophies to ensure ecological integrity, maintain and enhance wildlife habitats in conjunction with the International Association of Fish and Wildlife Agencies (IAFWA) and The Wildlife Society (TWS) to develop responsible wildlife management policies.

The above stated professional wildlife associations corroborated with position statements of their own supporting the responsible human use of wildlife and management by trained professional agency personnel. The following quotes were selected from their position statements.

" Support and promote the principle that options for wildlife management activities and habitat alterations be developed by trained wildlife professionals, and be implemented and coordinated through resource management agencies that are legislatively mandated and empowered to do so."

The Wildlife Society, October 1990 (Appendix A)

" Support and promote the position that stewardship of fish and wildlife is best exercised through legally mandated, professionally staffed resource management agencies responsible to present and future generations."

The International Association of Fish and Wildlife Agencies,  
March 1990 (Appendix B)

Further, the Division of Fish and Wildlife acknowledges that humans have an inseparable relationship with all other parts of the natural world. Furthermore, humanity is answerable to another set of laws and concepts that is uniquely a product of human society. Animals cannot be subject to those laws and concepts and therefore do not have the rights of humans. It is agreed, nonetheless, that animal welfare is a realistic and desirable concept which we support. Humanity does have responsibilities to animals: ensure ecological integrity, preserve genetic diversity, and sustain species and ecosystems. All animals use other animals for their existence. The responsible human use of animals is natural and appropriate, as a method, hunting of deer by archery is a responsible and ethical means of harvesting deer. (Appendix G)

The philosophies of animal rights groups are contrary to scientific methods of wildlife management.

The major factor in ecosystem disruption, which affect wildlife populations, is human activity. Growth and development have resulted in dramatic destruction and alteration of habitat, loss of wetlands and elimination of natural predators. Regulation of human activities and management of wildlife habitats, achieved through efforts of conservation groups and resource management professionals have restored many habitats and wildlife populations.

Without regulation and management, the resultant deterioration of the habitat can disrupt the ability of the ecosystem to support wildlife populations. (Appendix A)

In some instances, wildlife populations exceed habitat capacities resulting in increased auto collision, disease outbreaks and mass starvation. Wildlife populations that are not in harmony with their surroundings may require innovative methods of management including barriers, habitat alteration and harvesting. Professional wildlife agencies perform the task of incorporating techniques that address the entire wildlife spectrum.

### **3) Status of Deer in Rhode Island**

The current Rhode Island deer herd is estimated at 4500 animals, increasing 5-10 percent per year, depending upon land use and hunter access. This is an extremely healthy and abundant deer herd.

In pre-colonial Rhode Island most of the land was forested and deer were common but not abundant. At the turn of the 20th century, unregulated market hunting and land clearing for farming, resulted in small, scattered numbers of deer. The present increase in deer numbers is a response to abandoned farms, fuel wood cutting practices, lack of predators, limited access and conservative regulated hunting.

Deer herd status in Rhode Island is assessed yearly at mandatory biological check stations. The condition of mainland deer are very healthy, while deer on Prudence/Patience Islands and Block Island are at average to below average health. (appendix C)

### **4) Hunting as a Management Tool**

Early deer management efforts featured protection from unregulated exploitation. Today, efforts are directed toward the maintenance of deer populations at levels intended to: (1) ensure the present and future well-being of the species and its habitat, (2) provide a sustained yield of deer for use by licensed hunters, and (3) allow for compatibility between deer populations and human land use practices, as well as with other plant and animal communities.

Fifty years of research and management experience have shown regulated hunting to be an ecologically sound, socially beneficial, and fiscally responsible method of managing deer populations. (appendix D)

### **5) Bowhunting - Deer**

#### **A. Bowhunting's Role In Wildlife Management**

Mr. William Hesselton, Deputy Assistant Agency Director, U.S. Fish and Wildlife Service, stated the need for more innovative methods, including bow hunting, to curb deer populations in the heavily populated Northeast. (appendix H)

Archery hunting is legal in every state in the nation and is particularly significant where there are high deer populations in urban/suburban areas. The importance of compatibility between land-use practices and deer populations in urban areas of the Northeast justifies consideration of another aspect of carrying capacity. "Cultural Carrying Capacity" (CCC) can be defined as the maximum number of deer that can coexist compatibly with local human populations.

Excessive deer/vehicle collisions, agricultural damage and home/gardener complaints all suggest that CCC has been exceeded. It is important to note that even low deer densities can exceed CCC; a single deer residing in an airport landing zone is too many deer. As development continues in many areas of the Northeast, the importance of CCC as a management consideration will increase. (appendix D)

In addition, many Rhode Island communities have local ordinances prohibiting the discharge of guns for any purpose, including hunting, which restricts weapon choice to bow and arrow only. (appendix K)

Upon request the Division of Fish and Wildlife developed a Prudence Island deer management/hunting program in response to starvation deaths. The program has been very successful and continues to be popular with archery hunters.

Biologists from New York and Virginia submitted testimony describing their successful deer management plans. The New York plan was independently developed to protect rare botanical collections on a 1,924 acre arboretum. Although most of their deer are hunted with firearms; archery is used at the onset of their season. All of the participants receive required instructions including proficiency testing. The arboretum has experienced high recovery rates and low crippling losses attributed to the quality of their program and participants.

Virginia's deer management system was developed by the state agency as requested by the Army. Similar to New York, the program enjoys the same high success rates and low woundings while managing the deer herd. Both states were able to demonstrate their success through follow-up programs which accounted for deer hit but not recovered. (lit cited)

### **B. Bowhunting Participation In Rhode Island**

During the 1990 license year, 2068 hunters participated in bowhunting for deer, an increase of 20 percent from 1989.

Archery hunters harvested 238 deer in 1990, 25 percent of the total harvest by all weapon types. (appendix C)

### **C. Rhode Island Hunter Safety Education Program**

The Rhode Island Division of Fish and Wildlife has been a forerunner in the nation with its educational and safety record for archery deer hunters. Bow hunter education has been mandatory in Rhode Island since 1974 and proficiency has been required on the Prudence and Patience Island Management Area since 1980.

The archery course taught in Rhode Island is based on the International Bowhunter Education Manual, developed by the National Bowhunter Education Foundation. In addition to equipment, the course offers instruction in ethics, preparation, hunting skills, animal handling, safety and a self test. (appendix E)

The Rhode Island education program is evaluated by the IAFWA and maintains an AAA rating. In 1990 Rhode Island was honored with the IAFWA's highest award as being the best program Internationally. A total of 1,146 students participated in the course and 250 took the additional bow education course. An average of 500 hunters take the proficiency test annually. (appendix J)

Mr. James Jones, USFWS hunter safety education coordinator and chairman of the National Bow Education Foundation testified to the strength of Rhode Island's program. Mr. Jones emphasized the tradition and legitimacy of bow hunting and the safety record. Education was stressed as the major component to address wounding rates. (appendix I)

#### **D. Weapon - Safety and Effectiveness**

Archery equipment used for deer hunting is regulated by Rhode Island statute as follows:

Any person hunting, pursuing or taking deer by archery shall be equipped with a long bow (straight limb, reflex, recurve and compound bow) of not less than forty (40) pounds pull at the archer's draw length, and shall use only broad head arrows, with at least two (2) cutting edges seven-eighths inches or greater in width at the widest point.

All broad heads used for deer hunting must be of the non-expandable, fixed, cutting edge type. Cutting blades must be made of metal. Broad heads designed to rotate around the axis of the arrow when in flight are permitted.

Each arrow possessed while hunting shall be marked with the name and address of the person using the same. No bow used in hunting deer shall be equipped with any mechanical device for drawing or releasing the arrow. According to Joy Borsay, Rhode Island hunter safety coordinator, there have been no human fatalities as a result of bow hunting, with only a few occurrences of minor accidents.

The National Safety Council in their 1989 report listed archery as a sport with a minimal percent of injuries per participant. (.09%) (appendix N)

The Wohlers & Co. Insurance, the major provider of insurance to National Field Archery Association affiliated clubs, indicates that the safety record for archery is excellent. (appendix N)

As stated in the International Bowhunting Manual, a broad head arrow functions by "severing major arteries and veins, causing massive hemorrhaging. Broad heads can also cause the malfunction of vital organs. Either or both of these conditions will shortly cause death." (appendix E)

Dr. Ward Stone, New York State wildlife pathologist examined thousands of deer since 1970 with only two cases of protracted morbidity due to arrow wounds. Modern arrows cause quick kills in vital areas or heal swiftly in non-vital areas due to less tissue destruction from an incised wound as opposed to bullet wounds. (appendix L)

Dr. Susan Blackburn, Rhode Island State Veterinarian submitted testimony concurring with Dr. Stone's statement (appendix K)

Dr. Victor F. Nettles, director, Southeastern Cooperative Wildlife Disease Study, submitted a comprehensive study based on necropsies from 1,002 deer. Results indicated an extremely small proportion of deer had previous arrow wounds. Only two had embedded arrows. The arrow wounds healed without complications, including one through the rumen. The razor sharp blades apparently created "clean" wounds that, if not fatal, heal quickly. (appendix F)

Dr. David E. Samuel compiled an extensive annotated bibliography on bow wounding (lit. Cited). Dr. Samuel's review concurred that deer hit in non-vital areas recover and are not "crippled." Some of the studies indicated high wounding rates. Dr. Samuel suggests that study methods without a ground search may be responsible for the rates reported. In other publications in popular articles, Dr. Samuel stressed the need for bow education as a method to train hunters to insure reduced woundings (lit cited).

Ludbrook and Tomkinson's (1985) research in Natal, South Africa studied use of bow as an ethical hunting weapon. Results from 96 various species of huntable animals indicated the following:

- bow is less traumatic to animals in vicinity of target animal vs gun
- target animal experiences less psychological damage than gun
- damage to meat is less vs gun
- mortally wounded bow shot animals travelled av. 100 meters, 30 meters further than gun shot
- mortally wounded bow shot animals died within in an average of 30 seconds, 7 more than with gun shot
- bow wounded 22% more than gun shot
- non vital shots had minimal damage to animals

Dr. Lunig, the president of the Rhode Island Veterinary Medical Association and committee member, testified to the following:

That the charge of the commission had been adequately addressed by staff members from the Division of Fish and Wildlife, and stated for them that bowhunting in Rhode Island is a warranted activity that is carried out in a responsible and humane manner.

**B. Financial and Economic Assessment**

**1) Hunter Expenses**

**ECONOMICS**

ARCHERY DEER PERMIT

Resident	1819	X	\$ 7.50	\$ 13,642.50
Non-Resident	249	X	\$20.50	5,104.50
<u>Hunting Licenses for Archery Component</u>				

Resident	1819	X	\$ 9.50	\$ 17,280.50
Non-Resident	249	X	\$20.50	5,051.50
(16 percent [n=12001] of total license sales) + <u>Hunting related expenditures</u>				

2068 archers X \$350.00~ ..... \$723,800.00  
Value of Venison

12,720 lbs. (Edible meat) X \$2.50/lb. X 1.75^..... \$ 55,650.00

Total **\$820,529.00**

- + Over 65 and disability not included
- ~ Average annual expense for archers as derived from partial completion of 1986 Rhode Island hunter survey.
- ^ Economic multiplier derived by Connecticut D.E.P.

Additional Expenses

Most archery hunting in Rhode Island currently occurs on Prudence Island in Narragansett Bay which is only accessible by private boat or Prudence Island Ferry Service. Round trip ticket to the Island costs \$4.70 per person and \$25.00 per vehicle.

Rates have remained constant for 10 years due to the increase in passengers and related ferry service to accommodate the archery hunters, which accounts for 15-20 percent of gross income. The low fares and increased service benefits all Island residents and tourists. (per. comm. P.I Ferry owners)

As an example of another economic impact in Princeton Township, New Jersey, the discharge of firearms was prohibited. Road kills increased by 538%, including one human fatality and agricultural damage exceeded \$57,000. (lit. cited)

## **C. Alternatives or Options**

1) As described in Section 5A, archery hunting can be an important tool in wildlife management. In areas with firearm restrictions, archery may be the only weapon option.

Alternatives to hunting and their economic impacts are concisely described in The Deer Management Option Booklet. (appendix D):

### **a) Trap and Transfer**

Prohibitively expensive, labor intensive, logistically unfeasible.

Additional concerns-need a transfer site, trauma to deer, and low survival rates.

### **b) Fencing, Repellents**

Effective only on small areas where financial benefit exceeds installation and/or application. Fencing aesthetics limits usage for most home owners. Repellent effectiveness is variable and negatively correlated to number of deer. Since this method does not reduce herd size, only location of the damage.

### **c) Fertility Drugs**

Applicable in zoo settings only. Problems include cost, bait distribution, dosage control, ingestion by non-target species and long term effect in food chain.

### **d) Supplemental Feeding**

Counter productive - encourages higher populations. The cost is prohibitive, and it increases disease transmission.

### **e) Sharpshooters**

Expensive to agency, causes lost revenues to local communities, and is controversial with recreational hunters.

### **f) Predator Reintroduction**

Does not consider complex interaction between predator and prey. Not acceptable in urban areas where opportunistic animals would prey on domestic species.

### **g) No Action - "Let Nature Take Its Course."**

Would lead to poor deer health, and negatively impact plant and animal communities. Humans have altered nature and land use and removed natural predators.

### **h) The "Pod" (Drug Tipped Arrow) Not Considered**

The FDA has prohibited the use of SCC (Succinyl Choline Chloride) for this purpose (pers. comm)

## **COMMISSION CONCLUSIONS**

The Commission has investigated all aspects of the environmental and economic impacts of bow hunting deer in the State of Rhode Island and finds that:

- whitetail deer are a common and abundant species in Rhode Island and further,
- the Rhode Island Division of Fish and Wildlife has a legal mandate for the management of the wildlife in the State of Rhode Island and further,
- the Division has utilized bow hunting as an integral part of deer management and further,
- the Rhode Island Hunter Safety Program has been internationally recognized as one of the finest programs of its type and further,
- bow hunting is a safe and affective method of harvesting deer especially where firearms are inappropriate in densely populated urban areas and further,
- the economic impact of archery hunting in the State of Rhode Island is approximately \$800,000 and further,
- alternatives to bow hunting, where other weapon choices are not available, as investigated by this Commission, were found to be ineffective in controlling deer numbers, economically unfeasible, and environmentally damaging to the health of the deer and associated ecosystem.

**In conclusion, this Commission recommends that bow hunting, as a method of hunting deer in the State of Rhode Island, continue as mandated by current statute and regulation.**

ATTENDANCE OF ORGANIZATIONAL MEETING FOR HOUSE STUDY  
COMMISSION ON RI DEERHUNTING

MEMBERS (23)

Speaker (7)

Attendance

Chairperson - Rep. Michael Zanni	1	2		4	5	6
Vice Chairperson - Rep. Rene Lafayette	1	2	3		5	6
Secretary - Rep. Brian Kennedy	1	2	3	4	5	
Rep. Jeremiah P. Murphy	1	2	3	4	5	6
Rep. Nancy Benoit		2	3			
Rep. Frank Fiorenzano			3			
Rep. Robert Tucker				3		

Public (7)

Former Rep. Irving Levin	1					
Jerry Martin	1	2	3	4	5	6
Edward Borkowski	1	2	3	4	5	6
Richard Capracotta	1	2	3		5	6
Marie LaPointe	1	2	3	4	5	6
Jack Lawhead	1	2	3	4	5	6
(Rep. Archery Manufacturing)	1	2	3	4	5	6
Charles Gray (Bow & Arrow Club of RI)	1	2	3	4	5	6

DIR/DEM (3)

John A. Stolgitis Chief, Fish & Wildlife	1	2	3	4		6
Lori Suprock Game Biologist	1	2		4	5	6
Frank Papa, Chief, Enforcement	1	2	3	4	5	6

SPCA (1)

Rep. SPCA Lionel E. Hetu	1					
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FRIENDS OF ANIMALS (2)

Steve Ruggeri	1					
James Haggerty	1					

RI VETERINARIAN ASSOCIATION (3)

Dr. Annette Rauch Veterinarian	1	2				
Dr. James Lunig Veterinarian	1	2	3	4		
Dr. Larry Dunn Wildlife Veterinarian						

ATTESTATION BY  
COMMISSION MEMBERS

*Michael A. Zanni*

Hon. Michael Zanni, Chairman

*Rene M. Lafayette*

Hon. Rene Lafayette, Vice Chairman

*Brian P. Kennedy*

Hon. Brian Kennedy, Secretary

*Jeremiah S. Murphy*

Hon. Jeremiah Murphy

*Jerry Martin*

Mr. Jerry Martin

*Edward A. Borkowski*

Mr. Edward Borkowski

*Richard Capracotta*

Mr. Richard Capracotta

*Marie LaPointe*

Ms. Marie LaPointe

Mr. Jack Lawhead

Mr. Jack Lawhead

Charles A. Gray

Mr. Charles Gray

John Stolgitis

Mr. John Stolgitis

Lori Suprock

Ms. Lori Suprock

Frank Papa

Mr. Frank Papa

James Lunig

Dr. James Lunig

## Appendices

- A. The Wildlife Society, Position Statement
- B. The International Association of Fish and Wildlife Agencies, Position Statement
- C. Deer Status Performance Report, W-23-R-34 Job IV-1
- D. An Evaluation of Deer Management Options Booklet
- E. International Bowhunter Educational Manual
- F. Observations on Injuries in Whitetail Deer

Testimony of the following:

- G. John Stolgitis
- H. William Hesselton
- I. James Jones
- J. Joy Borsay
- K. Mark McSally
- L. Dr. Ward Stone
- M. Dr. Susan Blackburn
- N. Marie LaPointe, Selected Material
- O. Minutes and Transactions

### Additional Literature Cited

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