

# Crossbow Hunting Today

Fish & Wildlife Board  
February 15, 2012

To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.





To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.

## In History

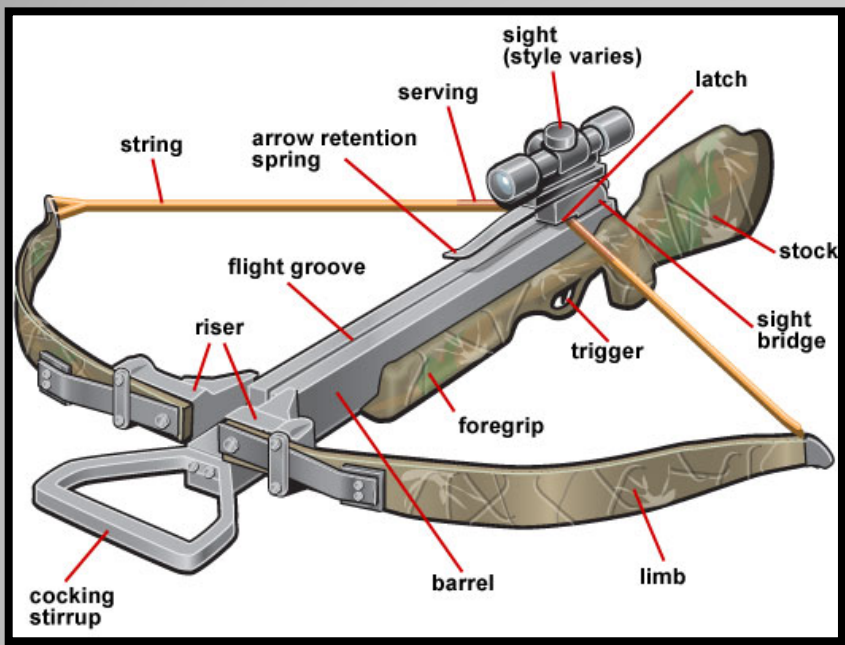


- Likely originated in Asia, at least back to 400 BC.
- Reached zenith in Medieval Europe.
- In 1139, Pope Innocent II may have banned their use against Christians.
- Longbows still considered superior i.e. Crecy and Battle of Agincourt.
- Replaced by firearms in the 16<sup>th</sup> and 17<sup>th</sup> century

## Never popular in Pre-Colonial America

To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.





- Made a comeback in the 50s and 60s.
- Recurve and compound models.
- Pistol (50lb) to full-size (125-200lbs)
- From \$175 to \$1,500.
- Most manual, one self-cocking model.

## Crossbows Today

To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.



## Crossbows

- Much greater draw weight.
- Bolt speed similar to arrows.
- 50 – 60 yards
- Cocked and remain ready-to-fire.
- Easier to shoot consistently.


## Compound bows

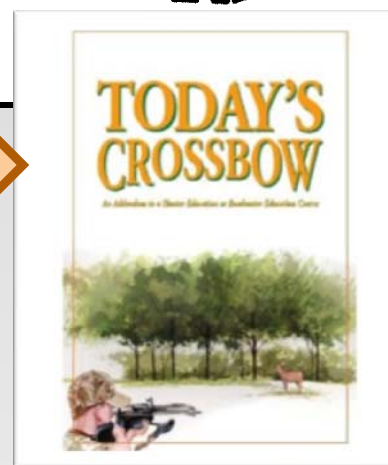
- Much greater 'power stroke.'
- Arrow speed similar to bolts.
- 30-40 yards
- Can't be drawn when game is close.
- Faster follow-up shot.

### Crossbows Today

To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.



- Considered archery equipment by the USFWS and subjected to the **same excise taxes**.
- Safety record similar to 'vertical' bows.
- Crossbow hunter education 
- A small 2008 MD study found similar wounding rates.



## Crossbows Today

To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.





## Crossbows Today: Regulations

All Seasons, All Hunters: **15**  
(PA, NJ)

Disabled Hunters Only: **12**  
(CT, MA, RI, VT)

All Seasons, but Disabled-Only  
during Archery: **9**  
(NH, NY)

Firearm and Archery Season but with  
Age Requirements and Disabled: **7**

Firearm Seasons and **Crossbow Season**: 3

Firearm Seasons Only: 2

Only in **Late Archery**: 2

Bear and Disabled: 1 (ME)

All Seasons, but Archery: 1

Illegal, No Exceptions: 1



To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.

## Equipment Restrictions

- Minimum draw weight, if any, ranged from **75lbs to 125lbs**, with 125lbs being most frequent.
- Maximum draw weight, if any, was **200lbs**.
- Min. draw length, if any, **24"**
- Min. limb width, if any, **24"**
- Min. stock length, if any, **25"**
- Other: mechanical safety



## Crossbows Today: Regulations

To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.





## Crossbows Today: Georgia

Legalized in 2002-'03 season; detailed analysis conducted after 2003-'04 season.

### Results:

- **24.8%** of archery hunters used crossbows.
- **13.5%** of crossbow hunters had used crossbow **previously under disabled permit.**
- **55.4%** of crossbow hunters were **already archers.**
- **9,300 additional** archers from previous survey.
- **6,900** crossbow hunters indicated they were **new** to archery.
- **Older archers** (50+ years old) were significantly **more likely to use** crossbows.
- The 4,550 additional deer harvested (484,000 total deer harvest).



To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.



Figure 1. Age structure of 2003-2004 Georgia crossbow hunters.

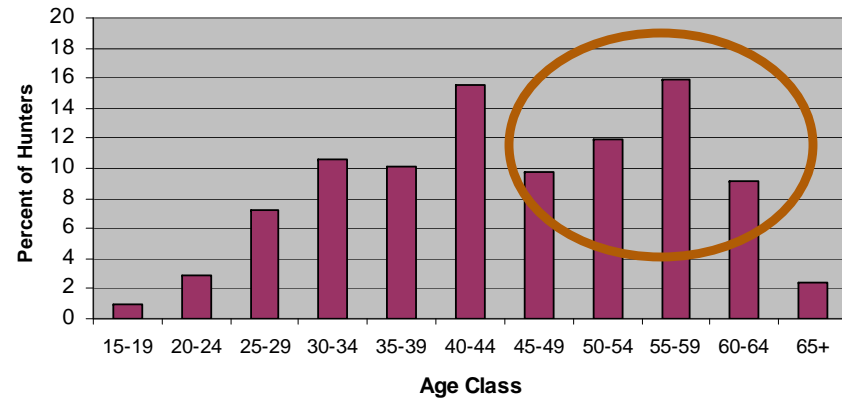
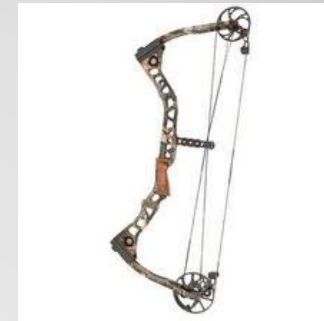
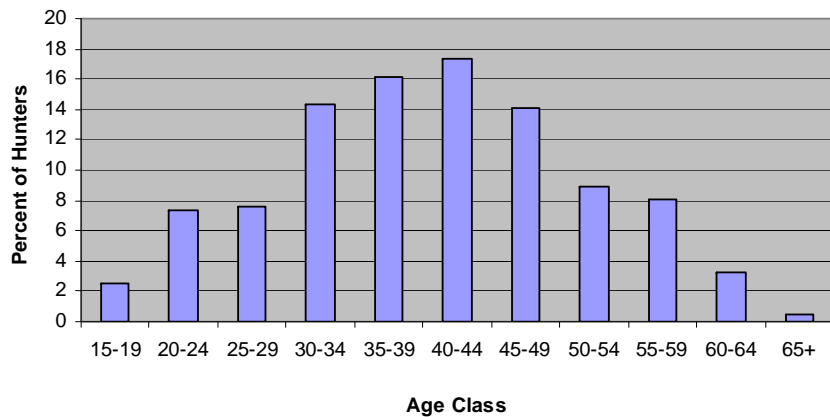


Figure 2. Age structure of 2003-2004 Georgia compound/recurve archers.

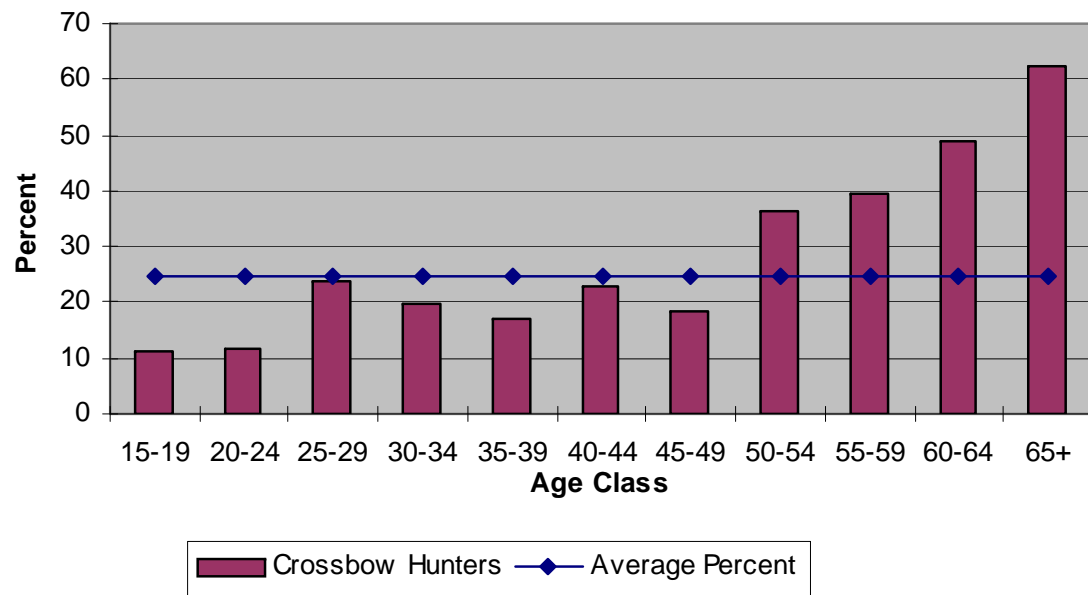


## Crossbows Today: Georgia

To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.



**Figure. 3 2003-2004 percent crossbow hunters in each Georgia archer age class.**

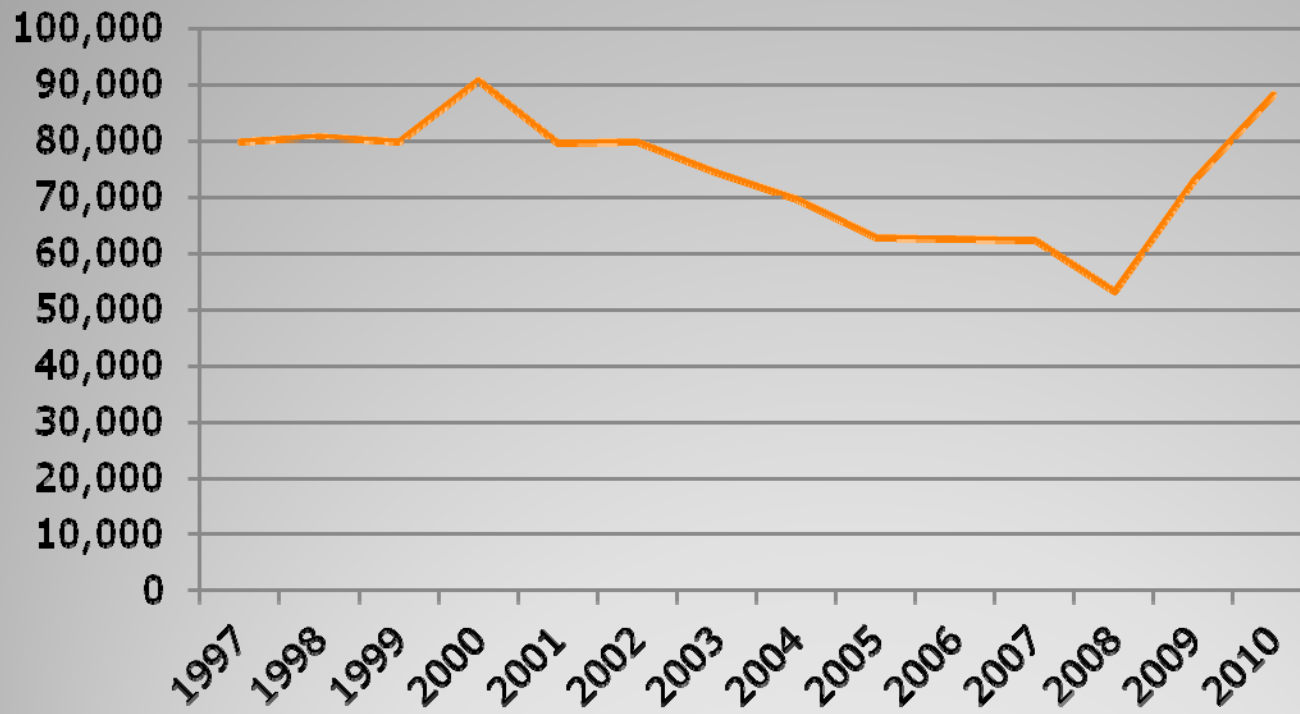


## Crossbows Today: Georgia

To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.



## GA Archery Participation



George DNR believes participation is stable to slightly increasing.  
Increasing archery use among all hunters (25% to 33%).

Mail survey through 2001, then phone.

FY license changed to calendar year in 2004. Also, two-year licenses added.

Primitive licenses discontinued in 2010.

Large number of Georgians don't need licenses.

Haven't measured crossbow use since 2005.

## Crossbows Today: Georgia

To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.



## Results from the 2010-2011 Season

### Ohio

- Legalized in 1976.
- Crossbow hunters slightly outnumber bowhunters.
- Harvest similar (44,123 vs 40,899).

### Pennsylvania

- In 2009-2010, legalized statewide.
- **2.86% increase** in archery license sales.
- Proportion of the archery harvest taken by crossbows increased from **30% to 34%**.
- Archery **harvest increased** 13%.
- Overall (including firearm)kill increased 2%.

### Michigan

- In 2009, legalized except for Upper Peninsula Late Archery.
- 90,600 crossbow hunters, harvested 38,000 deer (41%).
- 216,086 bowhunters, harvested 79,180 deer (37%).
- Archery hunter numbers **increased .4%** ; total number of hunters **decreased 4.4%**

### Maryland

- Legalized statewide in 2009
- Archery harvest virtually unchanged.
- Percentage of archery harvest by crossbow increased from **18.9% to 27.8%**.

## Crossbows Today: Other States

To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.





## Crossbows Today: Success Rate Comparison

	Crossbows	'Vertical' Bow
<b>GA</b> (2003-2004)	49%	46%
<b>MD</b> (2010-2011)	35%	35-40%
<b>MI</b> (2010-2011)	41%	37%
<b>OH</b> (2001)	14%	14%

To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.



	- 2	-1	0 1 <sup>st</sup> Season with Crossbows	+1	+2
<b>GA</b>	50,000	44,600	37,800	57,600	42,441
<b>MI</b>	126,197	106,439	117,633	117,190	
<b>MD</b>	22,064	26,346	27,373	27,286	
<b>PA*</b>	323,070	335,850	308,920	316,240	

\* Total deer kill, including firearms.

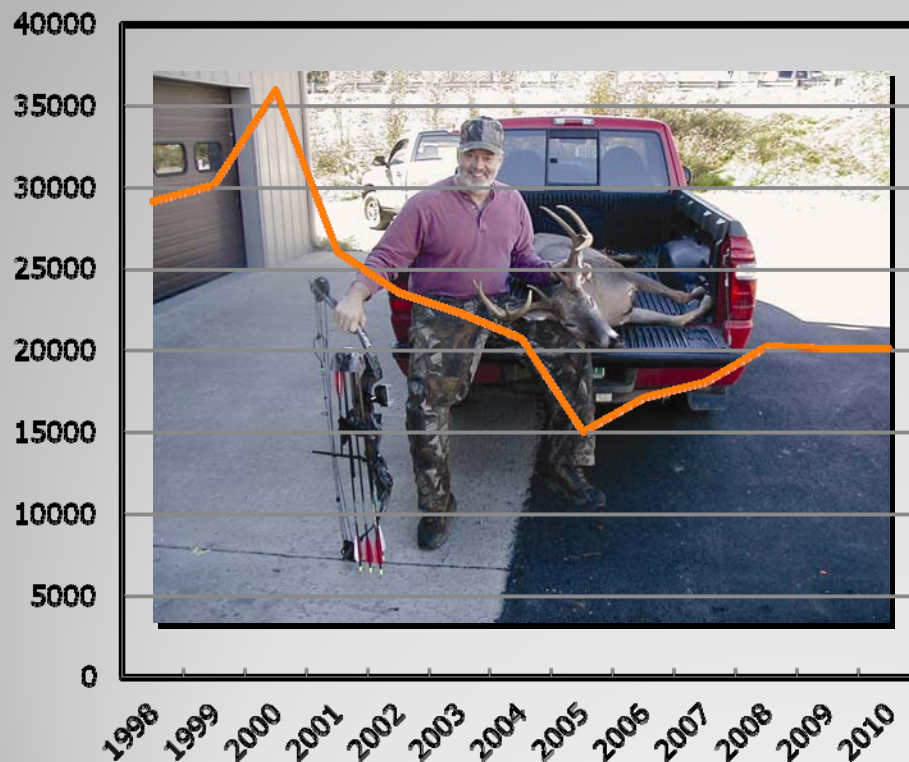
## Crossbows Today: Impact on Archery Harvest

To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.



## Crossbows Today: Vermont

### VT: Resident Archery License

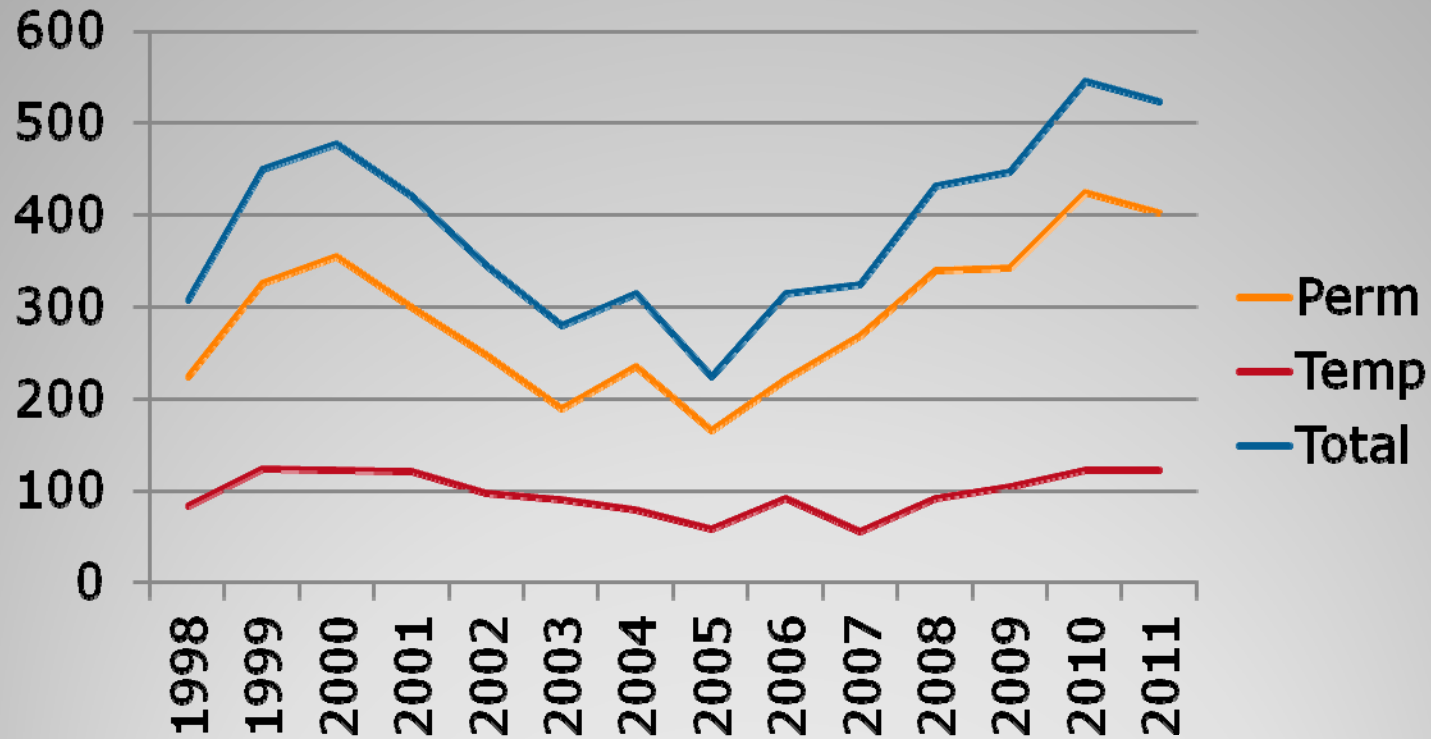


- Since 1998, archery license sales have dropped 30%.
- Hunting license sales down 18% in same period.
- Represents a loss of about 9,100 bowhunters.
- Bowhunter education was made mandatory in 2001; grandfather clause likely explains spike in 2000.



To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.

## VT: Crossbow Permits



## Crossbows Today: Vermont

To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.



## Crossbows Today: a Poacher's Tool?



- Use already regulated in Vermont.
- Illegal to transport a 'loaded' crossbow.
- Illegal use likely increasing as they become more available.
- Other states report they are used no more or less than other equipment, including compounds.



To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.

- Modern crossbows are no more or less primitive than modern compounds.
- Primary advantages:
  - Cocked and remain ready-to-fire.
  - Easier and faster consistency.
- Liberalizing use.
- A positive impact on recruitment and retention, especially with older archers.
- Harvest rates similar; some influence on total kill.



## Crossbows Today: In Sum

To protect and conserve our fish, wildlife and plants, and their habitats for the people of Vermont.

