

## The Migratory Gamebird Regulatory Process

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### Early Waterfowling

- Wild waterfowl have been hunted since prehistoric times for food and for their feathers.
- There is ample evidence that Native Americans hunted waterfowl (bow and arrow, cage traps, decoys, etc.).



Early European settlers in America, hunted waterfowl with great zeal, as the supply of waterfowl seemed unlimited in the coastal Atlantic regions. During the fall migrations, the skies were filled with waterfowl. Places such as Chesapeake Bay, Delaware Bay, Barnegat Bay were hunted extensively.



In the 19th century, the seemingly limitless flocks of ducks and geese in the Atlantic and Mississippi Flyways of North America were the basis for a thriving commercial waterfowl hunting industry.



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As more immigrants came to America in the late 18th and 19th centuries, the need for more food became greater. Market hunting started to take form, to supply the local population living along the Atlantic coast with fresh ducks and geese.



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Men would go into wooden boats and go out into the bays hunting, sometimes with large shotguns. They would bring back a wooden barrel or two of ducks each day. Live ducks were used as decoys as well as bait such as corn or other grain to attract waterfowl.



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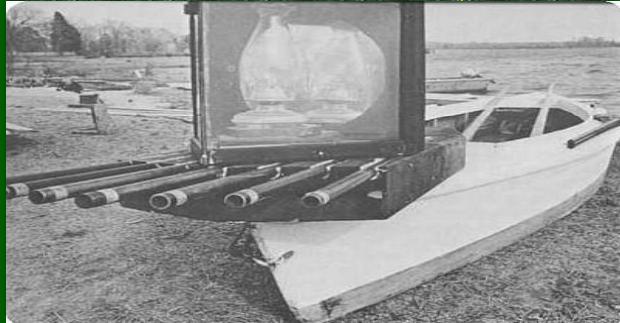
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With the advent of punt guns- massive, boat-mounted shotguns that could fire a half-pound of lead shot at a time, hunters could kill dozens of birds with a single blast.



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This was the four and six gauge shotgun.



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- Early conservationists, many of them avid hunters and anglers, saw the rapid decline and plight of many species in the late 1800s through the early 1900s due to unregulated market-hunting, commerce of wildlife and habitat loss.
  - Through the efforts of leaders like President Theodore Roosevelt, Aldo Leopold, John Muir, and the establishment of sportsmen's organizations, they helped pave the way to ensure sustainable wildlife resources forever.

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## A New Era of Conservation

- By the turn of the 20th century, commercial hunting and loss of habitat due to agriculture, lead to a decline in duck and goose populations in North America, along with many other species of wildlife.
- The Lacey Act of 1900, which outlawed transport of poached game across state lines, marked the dawn of the modern conservation movement.
- Federal protection specifically for waterfowl began in 1913 with the Weeks-McLean Act, which established federal control over migratory birds and ended spring waterfowl hunting. This was an important step in protecting breeding birds. The Act allowed the Secretary of Agriculture to set closed seasons when it would be illegal to capture or kill migratory birds.
- Passage of the Migratory Bird Treaty Act in 1916, signed by the United States and Great Britain, established formal cooperation between the United States and Canada for the protection of both game and nongame birds.
- In 1937 the Migratory Bird Treaty Act was amended to include Mexico. While this treaty was originally designed to protect waterfowl for sport hunting, a major result was the protection of all other migratory birds.

- In 1934, at the urging of editorial cartoonist and conservationist J.N. "Ding" Darling, the U.S. government passed the Migratory Bird Hunting Stamp Act, better known as the Federal Duck Stamp Act. This program required hunters to purchase a special stamp, in addition to a regular hunting license, to hunt migratory waterfowl. This stamp cost two dollars in 1934 but today the price is fifteen dollars. Revenues from the stamp program provided the majority of funding for conservation for many decades. The stamp funded the purchase of 4.5 million acres of National Wildlife Refuge land for waterfowl habitat since the program's inception in 1934. The Duck Stamp act has been described as "one of the most successful conservation programs ever devised."

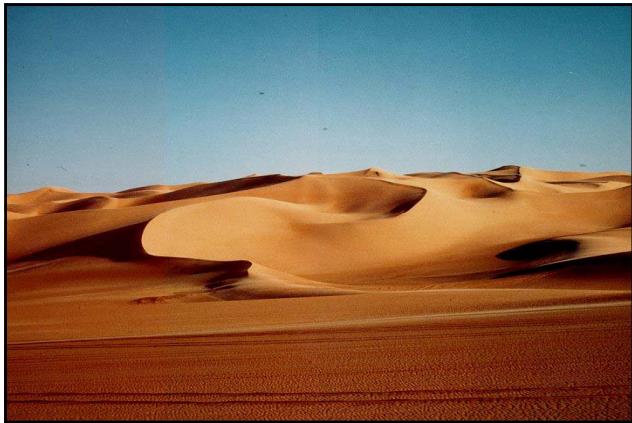
- While market hunting was devastating to many species, sport hunting rarely endangers species and, in fact, provides a good source of revenue for wildlife protection and habitat improvement, as exemplified by the Duck Stamp Act and the Pittman-Robertson Act.
- The passage in 1937 of the Pittman-Robertson Act, also known as the Federal Aid in Wildlife Restoration Act, created a major source of funds for wildlife restoration by placing a 10% tax on the manufacture of sporting arms and ammunition. Additionally, this act stipulated that all money raised from the sale of hunting licenses must be used for wildlife projects. Prior to the Pittman-Robertson Act, money intended for wildlife conservation often got redirected to fund other local projects such as schools or road repairs.

## Why are Migratory Bird Regulations So Complicated?

- Regulations regarding migratory bird hunting are varied and sometimes complex.
- Migratory birds in North America are an international resource, with numerous species breeding throughout the United States and Canada. In the fall of each year, these birds migrate south to winter in the USA, Mexico, and Central and South America.
- Because these birds cross international borders, ultimate management authority lies with the federal governments in the respective countries. Migratory bird treaties with other countries govern the management of migratory birds in the US, distinguishing those species that can be hunted from those that can't and establishing limits on hunting-season dates and season lengths.
- State and provincial agencies can set additional regulations within the overall frameworks established by treaties and federal regulations.

## Brief History of Waterfowl Regulations in the US

- 1920s -- Waterfowl hunting regulations were liberal (for example, 107-day seasons, 75 ducks per day) and similar among states.
- 1930s -- After the drought years of the 1930s, more conservative regulations were adopted.
- 1940s -- The Flyways approach to regulation setting was developed.
- 1950s -- Fine tuning of regulations along Flyway lines. Differences recognized in waterfowl abundance, hunter demographics and climate. Regulations became more complex.
- 1960s -- Special seasons sprouted up throughout the continent.
- 1970s -- Population goals and harvest guidelines guided the regulation-setting process.
- 1980s -- Drought and decline in waterfowl populations; Development of the North American Waterfowl Management Plan
- 1990s -- Development of Adaptive Harvest Management.



## How it is Done Now

- Migratory game bird management in the United States is a cooperative effort of state and federal governments.
- Since 1948, waterfowl have been managed by four administrative Flyways that are based on traditional migration paths:
  - the Atlantic, Mississippi, Central, and Pacific Flyways.
- In the US, the Flyway Councils, consisting of representatives from state and provincial game-management agencies, recommend regulations to the U.S. Fish and Wildlife Service (Service) for waterfowl and for most migratory, shore and upland game birds.
- The Councils are advised by flyway technical committees consisting of state and provincial biologists. These technical committees evaluate species and population status, harvest, and hunter-participation data during the development of the Council recommendations.

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## Mississippi Flyway

- The history of regulation setting in the flyways has been contentious at times ...and still is.
- Secession of the early 70s over season closing dates and other issues.
- Goose wars of the 80s and 90s – quota system.
- Establishment and proliferation of Giant (resident) Canada geese and nuisance issues.
- Modern Holistic Canada goose management.
- The process for the wood duck management plan, and conflict over NAM vs RAM
- Current Conflicts:
- Recent Zone Changes, Season closure dates, Early wood duck season, early teal season in production states, Redhead bag (administrative revenge), harvest equality (differences in harvest from north to south...imm/adult ratios), conflict over prescribed vs. derived models



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- The Service's Office of Migratory Bird Management (MBMO), with advice from biologists in the Service's Regional Offices, evaluates the Council recommendations, considering species status and biology, cumulative effects of regulations, and existing regulatory policy, and makes recommendations to the Service's Regulations Committee, which consists of members of the Service Directorate.
- The Service Regulations Committee considers both the Council and MBMO recommendations, then forwards its recommendations for annual regulations to the Service Director.
- Once regulatory proposals are approved, they are published in the Federal Register for public comment. After the comment period, final regulations are developed, which are then signed by the Assistant Secretary of the Interior for Fish, Wildlife, and Parks.

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## Adaptive Harvest Management

- Most waterfowl hunters and biologists have heard the term Adaptive Harvest Management, or the initials AHM, but few probably know exactly what it is or how it works.
- AHM takes the regulatory process from the "smoke-filled back rooms" and uses science to make objective decisions on setting hunting seasons.
- The annual process of setting duck-hunting regulations in the United States is based on a system of resource monitoring, data analyses, and rule making. Each year, monitoring activities such as aerial surveys and hunter questionnaires provide information on harvest levels, population size, and habitat conditions. Data collected from these monitoring programs are analyzed each year, and proposals for duck-hunting regulations are developed by the Flyway Councils, States, and the U.S. Fish & Wildlife Service (USFWS). After extensive public review, the USFWS announces a regulatory framework within which States can set their hunting seasons.

- In 1995, the USFWS adopted the concept of adaptive resource management for regulating duck harvests in the United States. This was the beginning of the current AHM system that is used today.
- The adaptive approach explicitly recognizes that managers cannot know with certainty the effect of a particular set of hunting regulations, and provides a framework for making objective decisions in the face of that uncertainty.
- Key to the adaptive approach is an ability to predict the effects of regulations – the better those predictions are, the more effective future regulatory decisions will be.
- Thus, adaptive management relies on a repetitive cycle of population and habitat monitoring, modeling and prediction, and decision making to clarify the relationships among hunting regulations, harvests, and waterfowl abundance.
- There is some disagreement among flyway biologists regarding the use of prescribed models vs. derived models.
- We measure with a micrometer, mark it with chalk, and cut it with an ax.
- Prescribed models work best in most cases for the level of precision/detectability we can measure.
- Some USFWS biologists want to manage populations on a derived model using an MSY curve... we want to manage as high on the "shoulder" as we can without going over (i.e., 95-99%). But we cannot manage, measure or detect change at that fine of a scale. These models result in a greater likelihood of partial or closed seasons on species that we currently are seeing no impacts to their populations from hunting under the current prescribed models.
- The models we use now are conservative. They are mostly prescribed, some derived...but in each case, our predicted harvest each year is lower than the actual harvest turns out to be.



## What is Required to Have Migratory Bird Hunting Seasons?

- ALL MIGRATORY BIRD HUNTING SEASONS ARE CLOSED.
- You must do certain things to have hunting seasons on migratory birds. For example:
  - Population surveys and Monitoring
  - Habitat surveys
  - Banding and marking programs
  - Hunter surveys (parts, HIP)
  - Harvest regulations and monitoring

## State Regulatory Process

- Receive Federal Frameworks
- Set our seasons within frameworks...can be more restrictive but not more liberal.
- Receive input from public (with liberal seasons, good duck numbers, not much input currently).
- Receive input from TWRA Regions.
- Develop Agency Recommendation.
- Present to TWRC in August for Approval.
- All State seasons published in Federal Register.

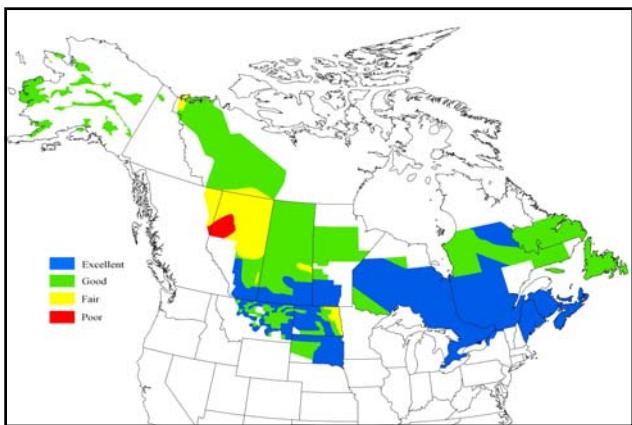
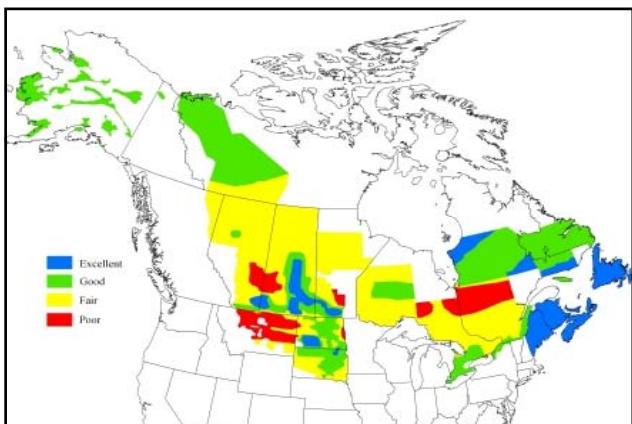
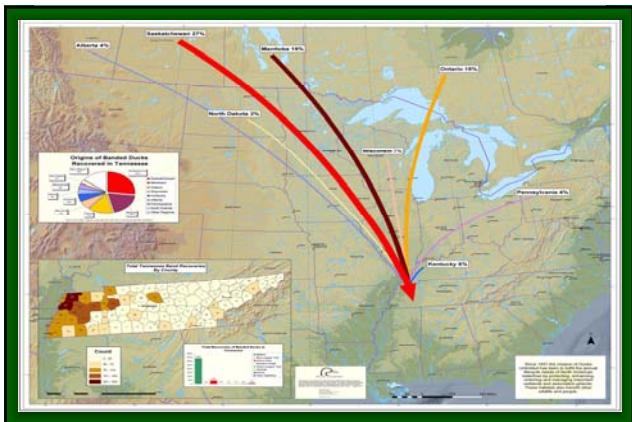
Table 3. Optimal regulatory strategy<sup>a</sup> for the Mississippi and Central Flyways for the 2009 hunting season. This strategy is based on current regulatory alternatives (including the closed-season constraint), on current mid-continent mallard models and weights, and on the dual objectives of maximizing long-term cumulative harvest and achieving a population goal of 8.5 million mallards. The shaded cell indicates the regulatory prescription for 2009.

Bpop <sup>b</sup>	Ponds <sup>c</sup>									
	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
≤ 4.5	C	C	C	C	C	C	C	C	C	C
4.75-5.75	R	R	R	R	R	R	R	R	R	R
6.00	R	R	R	R	R	R	R	R	M	M
6.25	R	R	R	R	R	R	R	M	M	M
6.5	R	R	R	R	M	M	M	L	L	L
6.75	R	R	R	M	L	L	L	L	L	L
7.0	R	M	M	L	L	L	L	L	L	L
7.25	M	M	L	L	L	L	L	L	L	L
7.5	M	L	L	L	L	L	L	L	L	L
≥ 7.75	L	L	L	L	L	L	L	L	L	L

<sup>a</sup> C = closed season, R = restrictive, M = moderate, L = liberal

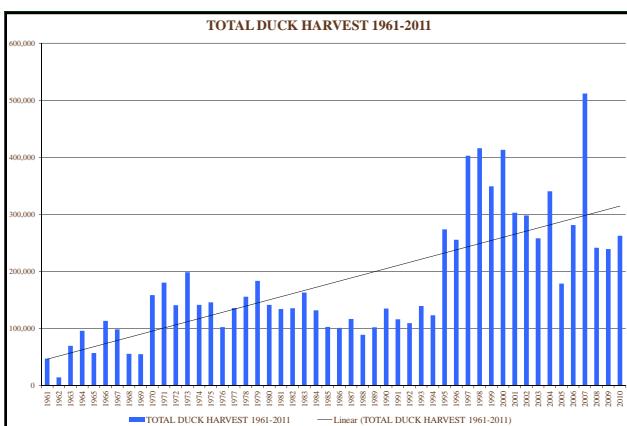
<sup>b</sup> Mallard breeding population size (in millions) in the WBPMS (strata 13-18, 20-50, 75-77) and Michigan, Minnesota, and Wisconsin.

<sup>c</sup> Ponds (in millions) in Prairie Canada in May.



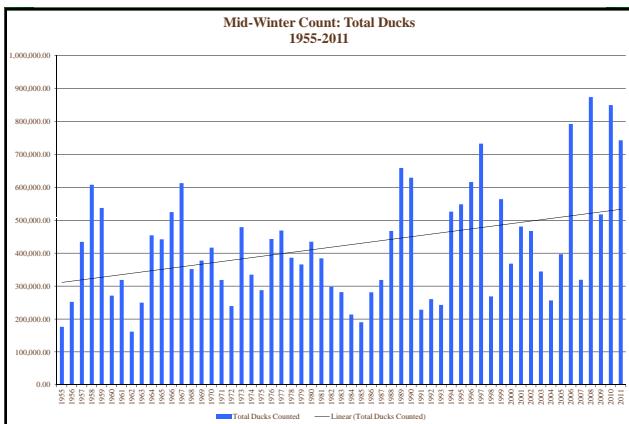
## 2010-11 Harvest Figures

- TN hunters harvested about 262,815 ducks last season.  
– Up slightly from the previous year and .
- TN Duck Hunters took to the field for about 137,635 trips, which was a small decrease from the previous year.
- The average TN hunter took about 8.5 duck hunting trips last season and harvested about 2 ducks per day.
- The Average Daily Harvest and Average Seasonal harvest were slightly below the long term trend.
- The average TN goose hunter averaged about 6 trips last season and harvested about 3 geese for the season.



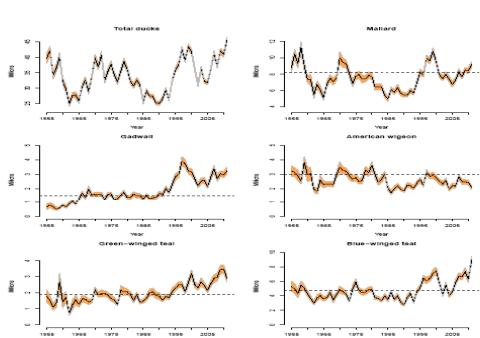
### RANKING OF THE MOST NUMERICALLY IMPORTANT SPECIES HARVESTED IN TENNESSEE

Species	2009/10	2010/11	5-year Avg.
• Mallard	128,946	112,500	154,024
• Gadwall	35,143	57,500	52,572
• Wood Duck	24,329	49,063	38,377
• Green-Winged Teal	12,435	15,625	18,254
• Wigeon	5,136	5,000	10,615
• Pintail	2,974	3,750	7,640
• Black Duck	5,407	1,250	4,090
• Blue-Winged Teal	4,055	5,313	3,802
• Canada Geese - Sept.	14,400	6,000	8,580
• Canada Geese - Late	28,300	23,100	19,420
• Snow Geese	578	503	2,249



## Waterfowl Population Status 2011

- Total Breeding Duck Population
  - 45.6 Million
  - 11% increase from last year
  - 35 % Above Long-Term Average since 1955
- May Ponds
  - 8.1 million
  - 22% above last year
  - 62% Above Long-Term Average



## 2011-12 Federal Frameworks Ducks

- 60 Days - Maximum for all species (No closed or Partial Seasons)
- Last Sunday in Jan Closure (Jan 30)
- Bag Limit - 6 Ducks

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### Duck Bag Limits 6 Ducks Daily

May not include more of the following:

- 4 Mallards (2 Females)
- 3 Wood Ducks (Late Season Only)
- 2 Redheads
- 2 Scaup
- 2 Pintails
- 1 Canvasback
- 1 Black Duck
- 5 Mergansers: only 2 can be Hooded Mergansers
- TWRA Recommends adoption of these bag limits

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## 2011-12 Duck Season



ZONE	DATES
Reelfoot	Nov 12 (Sat) - Nov 13 (Sun) Dec 3 (Sat) - Jan 29 (Sun)
Statewide	Nov 26 (Sat) - Nov 27 (Sun) Dec 3 (Sat) - Jan 29 (Sun)

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2010/11	
Youth Waterfowl Hunting Season	
2-days	
STATEWIDE ZONE <u>OPENS</u>	<u>CLOSES</u>
Feb 5 (Sat)	Feb 6 (Sun)
REELFOOT ZONE <u>OPENS</u>	<u>CLOSES</u>
Feb 12 (Sat)	Feb 13 (Sun)

**FEBRUARY 2012**

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1	2	3	4 STATEWIDE YOUTH HUNT
5 STATEWIDE YOUTH HUNT	6	7	8	9	10	11 REELFOOT ZONE YOUTH HUNT
12 REELFOOT ZONE YOUTH HUNT	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29			

Modern Goose Management
<ul style="list-style-type: none"> <li>Began a more holistic approach to Canada goose management.</li> <li>In the mid 2000's the MF made a move away from state quotas.</li> <li>Recognized the buffering affect of Giants (residents) on Interior flocks (MVP, SJBP, EPP, TGP).</li> <li>Allowed states to set more uniform seasons and bag limits.</li> <li>Appears to be working, Interior flocks appear to be maintaining their population levels (relative to breeding ground conditions).</li> <li>Snow geese.. Conservation order is not making a difference. Pop still growing and causing major damage.</li> </ul>

2011/12 Goose Daily Bag Limit <i>May not include more of the following:</i>
<ul style="list-style-type: none"> <li>• 20 Snow, Blue &amp; Ross' Geese</li> <li>• 2 White-Fronted Geese</li> <li>• 2 Canada Geese</li> <li>• 2 Brant</li> </ul>



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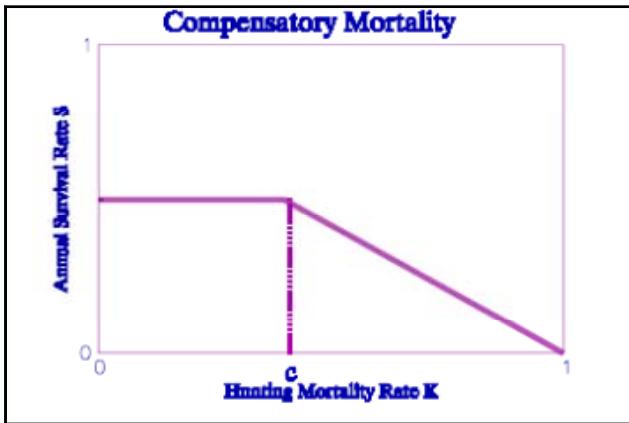
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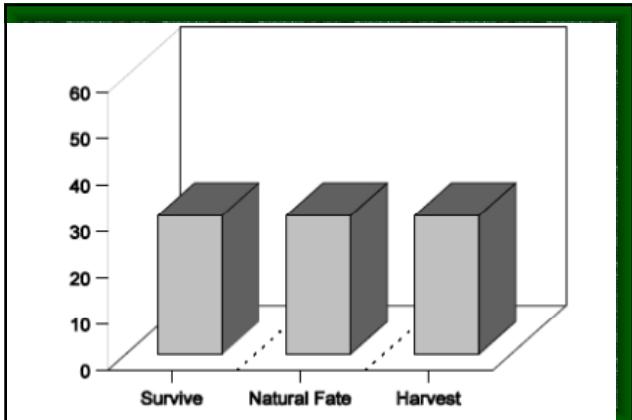
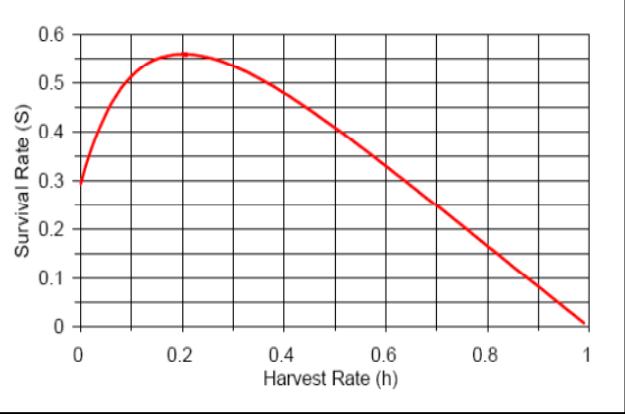
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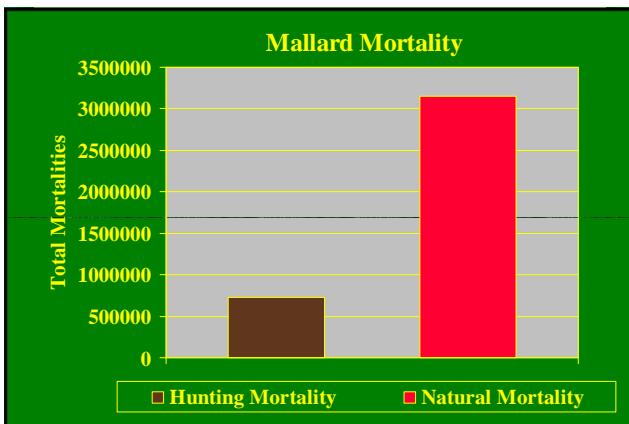
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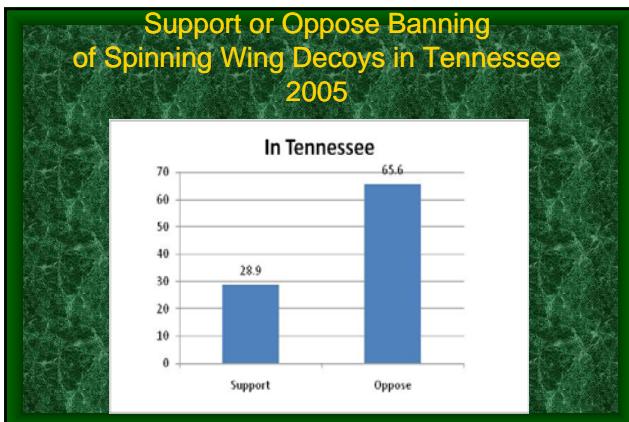
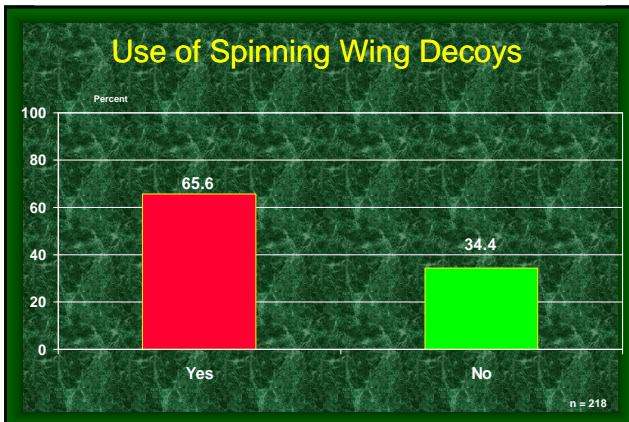
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- ### Sandhill Cranes
- Sandhill cranes wintering in TN are from the Eastern population of Greater Sandhill Cranes. The population is 60,000-80,000+ (counted on staging areas, not all are counted).
  - Management plan was developed by flyways and other biologists. Approved in 2010. Mgt plan allowed for a regulated harvest: allocated by state; based on a permit system, not an overall harvest system. Each permit does not equal a harvested crane. Very conservative plan.
  - TWRA proposed a season based on criteria in the mgt plan. Was opposed by anti-hunting activists and TOS. Many attending the TWRC openly stated that they opposed hunting.
  - Many letter of opposition stated that it was not a game bird and should not be hunted. Got a letter from the former President.
  - Most were unaware that sandhills are a migratory gamebird and are hunted in many western states, Canada, and Mexico. Populations much smaller out west have regulated seasons and have seen no negative impacts.
  - Opponents conceded that there would likely be no biological impacts but just thought it was wrong to hunt such a "beautiful and majestic" bird that had not been hunted here in a long time. The "warm and fuzzy" effect.
  - Hunters were complacent and didn't react with letters of support or attend the commission meeting.
  - KY hunters responded with strong support for a season and KY now has the first season in the MF Flyway.

- ### Current issues
- Models used in regulatory process.
  - SWDs
  - Zones
  - Season Dates
  - Bag limits
  - Shortstopping
  - Early seasons



**Hot Off the Press**

- “I think the time is coming when these men will insist on more and better answers than have yet been given by the Wildlife Service or Ducks Unlimited to the question “What has happened to our Waterfowl?”
- “....it has resulted in mallards remaining longer in the Midwest during their migration...Mallards now winter north of their former wintering areas”
- *Wildfowling in the Mississippi Flyway, 1949*



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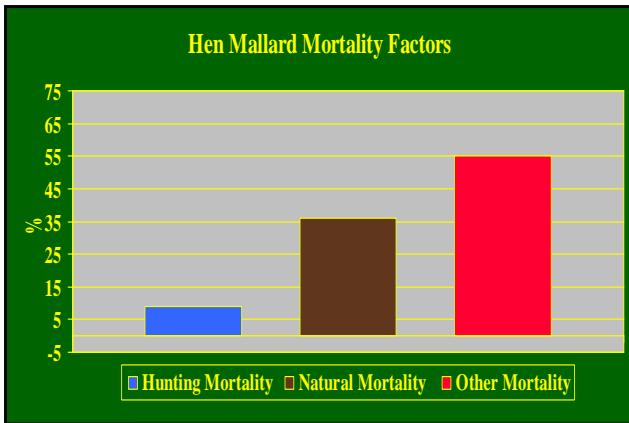
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