

Wildlife Issues

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Wildlife Harvest Reporting System Update

By Ron Seiss & Larry Castle

LAST JANUARY, THE MISSISSIPPI DEPARTMENT OF Wildlife, Fisheries, and Parks (MDWFP) held public meetings throughout the state to discuss a new deer and turkey harvest reporting system called Tele-check. Tele-check will require successful deer and turkey hunters to call a toll-free number and answer a few questions about their harvest. The system will provide the MDWFP with harvest numbers, age structure and sex ratios on a county by county basis. Tele-check also will be an enforcement tool as hunters will validate the report card portion of their hunting license when they harvest a deer or turkey. Obtaining harvest information at a county level and having a tool to monitor bag limit compliance will greatly enhance the MDWFP's ability to manage the state's deer and turkey resources.

The purpose of the public hearings was to inform sportsmen about the new harvest reporting system, to receive their comments, and determine their level of acceptance. At the meetings, the Agency's new Point-of-Sale (POS) license system was also discussed. POS is a state-of-the-art computerized license system that maintains all hunting and fishing license sales information in a [Cont. on 7]



What Mississippians Think About Baiting

By Ron Seiss, Eric Darracq & Larry Castle

DURING THE LAST SEVERAL MONTHS, THE Mississippi Department of Wildlife, Fisheries and Parks has actively tried to assess what Mississippians' opinions are on numerous wildlife related issues. Many of you are curious as to what the results are surrounding the baiting issue.

Four populations of people were surveyed about the baiting issue by mail. For the first three populations, all people on each mailing list were invited to participate in this sur-

vey. They were members of the ① MDWFP Deer Management Assistance Program, ② MS Chapter of the National Wild Turkey Federation, and ③ MS Bowhunters Association. For the fourth population of people, surveys were mailed to a random sample of 3,000 all-game hunters. The results are based on Mississippi resident respondents who voluntarily completed and mailed back the survey to MDWFP. Return postage for the surveys was provided and paid for by MDWFP.

Figure 1 indicates that 70% of Mississippi hunters want increased fines for people who illegally hunt deer over bait, while 17% want decreased fines, and 13% want to keep the same fine (\$25-\$99). Of hunters who want increased fines, 52% want the fine increased to \$500 or [Cont. on 7]

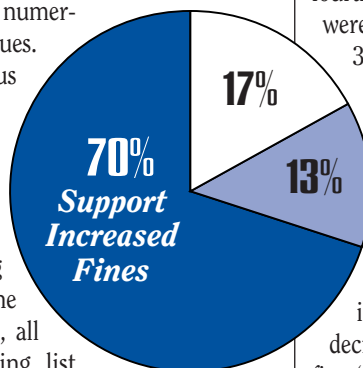


Figure 1

2001 BAITING SURVEY RESULTS, SEE PAGE 7.

Hot Issues Ride Herd this Deer Season



The Rub

Larry Castle

White-tailed Deer
Program Coordinator

WILDLIFE ISSUES SEEMS TO BE AN APPROPRIATE title for this newsletter. Issues certainly dominate hunting seasons. The 2001-2002 deer season is now here. In retrospect, we can remember the issues which have dominated previous deer seasons. The issues were remarkably different 20 years ago than what they are today. Archery, primitive weapon, still hunting and dog hunting seasons have all had their year(s) of limelight. Doe seasons and opportunities to harvest antlerless deer have created considerable controversy in the past. In contrast, little is heard from these issues today. This time last year, one concern was whether the drought would have an effect on deer condition or quality, but the dominant issue was baiting. Would it be legalized? What did hunters really think? Those questions have been answered, so what will be the issue or issues this season?

Currently, national deer issues of significance center around two topics - one is disease. *Chronic wasting disease*, *bovine tuberculosis*, and *foot and mouth disease* are in the headlines today. If Mississippi and the Southeast will take some proactive measures, we can avoid potential problems from these diseases. Will they become issues this year?

The second national issue of significance is building high fences to prevent or restrict movement of free-ranging white-tailed deer. All game animals, including white-tailed deer belong to the State of Mississippi. Is the fencing of these animals preventing the free movement of the state's property and public access to that property? When landowners can not attain management goals with-

out a fence, is the practice legitimate? Will fencing become an issue this year?

As previously stated, the baiting issue was addressed last year. Hunters were surveyed and the results are compiled. By approximately 2 to 1, hunters do not think that hunting deer with the aid of bait is ethical. Furthermore, they do not want baiting legalized and they want a higher fine placed on violations of the existing law. Those in support of baiting will still be heard, however, a clear signal has been sent to decision makers. In addition, to eliminate further potential controversy, a clear definition of what constitutes baiting is needed. Will these potential legislative topics become issues this year?

The concept of a Tele-check system of big game harvest reporting and bag limit compliance was launched last year. A variation of this system will be initiated with the implementation of a new Point of Sale license system early next year. For Tele-check to be most effective, a method for including hunters who are currently exempt from purchasing a license is essential. In addition, thousands of dollars of federal excise tax monies that could be used in Mississippi are currently going to other states because these exempt hunters are not counted under the existing license structure. Will these opportunities become issues this year?

One of the most popular deer-related legislative changes in the past 10 years has been the 4-point law. Hunter support for this law exceeds 75 percent in some surveys. Several long-term biological concerns have recently been discussed throughout the southeastern United States. Limitations are being placed on some valid deer management programs because of this law. However, hunters in the majority of the state have been provided an opportunity to harvest an older and larger antlered buck than they have in the past 20 years. Will the opportunity to harvest spikes and 3-point bucks by permit on managed property become an issue this year?

Several questions have been raised in this column. Biologists of course do not determine what the issues will be - hunters do. Biologists do evaluate issues from a different perspective than that of hunters. Some personal bias may [Cont. on 6]



Foot and Mouth Disease

By Larry Castle
& Randy Spencer

FOOT AND MOUTH DISEASE (FMD) is a highly infectious viral disease of domestic and wild cloven-hoofed animals (cattle, sheep, swine, goats, deer, and other cervids). It has been identified as one of the most contagious animal diseases known. The FMD virus has not been reported to readily infect humans.

The FMD virus is found in saliva, feces, urine, milk, semen, meat, and meat byproducts of infected animals. It can survive for several hours in airborne droplets, which allows aerosol transmission to occur up to 35 miles away. Other means of transmission include direct contact among animals and indirect contact from virtually any object or material.

The disease is characterized by blisters in the mouth and on the feet and teats of infected animals. Other clinical symptoms include lameness, lethargy, excessive salivation, loss of appetite, and abortion. The blisters, which contain vast quantities of the virus, are not always observed because they easily rup-

The disease is characterized by blisters in the mouth, feet and teats of infected animals.

ture, leading to ulcerations on the snout, tongue, and lips of infected animals. Because of this characteristic, FMD lesions can mimic those commonly observed in Epizootic Hemorrhagic Disease (EHD) infected white-tailed deer. The virus is highly insensitive to cold, which renders it capable of surviving during prolonged periods of sub-freezing temperatures.

The widespread occurrence of FMD has been confirmed, to date, by positive tests from 191 locations in the United Kingdom (UK). FMD has also been confirmed in France. Measures to prevent [Cont. on 6]

Current Diseases of Concern to Miss. Deer Hunters

By Larry Castle & Randy Spencer

THE FOLLOWING INFORMATION IS by no means meant to be exhaustive; volumes of new information are reported monthly. It is intended to educate deer hunters in Mississippi and issue a timely warning about the greatest danger of introducing new wildlife diseases into the state.

Wildlife biologists have cautioned sportsmen for decades about the serious nature of wildlife diseases. We have witnessed the effects of anthrax within specific white-tailed deer populations in Mississippi. Epizootic

If you have been listening to virtually any national media source for the past 5 years, you know that these dangers are now very real

hemorrhagic disease, commonly referred to as bluetongue, is something we have learned to live with. Malnutrition disease in deer has become commonplace. When given the opportunity we have warned of the potential dangers of disease transmission through supplemental feeding, baiting, overpopulated deer herds and more recently the extreme risks of cervid (hoofed animal) translocation and importation.

If you have been listening to virtually any national media source for the past 5 years, you know that, unfortunately, these dangers are now very real. Several "new" diseases in the public health, domestic livestock and wildlife arenas now exist in North America. Some of these diseases may actually have been present for centuries, but have only recently been identified as a result of enhanced diagnostic capabilities and increased surveillance. These diseases present themselves as a significant threat to wild ungulates (deer, elk and sheep). Hunters have probably read or heard the most about several varieties of Transmissible Spongiform Encephalopathy (TSE) diseases. Sensationalized, non-scientific based media accounts have led to potentially unwarranted concerns, and even fear, in the hunting community about public health issues related to these TSE diseases:

■ **Mad Cow Disease (Bovine Spongiform Encephalopathy or BSE)** — This particular

variety of these diseases has thus far been limited to cattle in Europe. The method of transmission in cattle has been linked to the ingestion of contaminated animal based feeds.

■ **Scrapie** — Limited to sheep and goats. It has been recognized in these species for over 300 years with no accounts in humans or other animals.

■ **Creutzfeldt-Jacob Disease (CJD)** — The human variety of this class of diseases, thought at least in part to be inherited. CJD cases in humans remain extremely rare and occur at a rate of one per million population worldwide.

■ **Variant CJD (vCJD)** — The human form linked to BSE. There have been no reports of vCJD in the U. S. or other areas free of BSE.

■ **Kuru** — confined to a cannibalistic tribe in New Guinea where the brains of departed relatives are eaten.

■ **Chronic Wasting Disease (CWD)** — this specific variety of this class of diseases is the one currently impacting North American game animals at an increasing rate. There is currently no evidence that CWD in infected animals can be transmitted to humans.

The TSE diseases are unlike any that have been studied before. They are not caused by a bacteria, virus, or toxin, and are not related to any type of nutritional deficiency. Dr. Randy Davidson, of the Southeastern Cooperative Wildlife Disease Study, explains that TSE diseases are the result of malformed proteins called prions. Although Stanley Prusiner won the Nobel Prize in medicine for his research on prions in 1997, they are still not well understood.

According to Dr. Sally Slavinski, of the U.S. Public Health Service and the Mississippi State Department of Health, the group of diseases now referred to as TSE's were first apparent in 1967 within two mule deer research populations in Colorado and Wyoming. It was not until 1978 that a veterinary pathologist discovered the brain lesions which were the same as those comparable with TSE. Since 1980, CWD has been

diagnosed in deer or elk in Alberta, Saskatchewan, South Dakota, Oklahoma, Nebraska, Wyoming and Colorado. Mike Miller, of the Colorado Division of Wildlife, in a recent report to a government committee referred to CWD as "an epidemic occurring in slow motion."

One of the more alarming properties of prions is that they can not be destroyed by any normal disinfecting agents or procedures. The prion can not be made harmless by burying, long term exposure to environmental conditions or even boiling instruments used in laboratory examinations and knives used in processing infected animals. Currently, the only known method of prion destruction is to burn them to ash.

Routes of TSE disease transmission are not precisely known at this time. Researchers have found that animal to animal transmission does occur. Possible means of transmission include contact with urine, feces and saliva such as that which occurs at



supplemental feeding stations, mineral licks and bait sites. The afterbirth from infected animals is another likely method of transmission. This danger is greatest among cervids confined in close proximity to one another within game farms or other artificially high population situations.

According to Dr. Beth Williams, Department of Veterinary Sciences at the University of Wyoming, minimum incubation periods (the time from exposure to the development of clinical signs) range from about 17 months in deer to about 20 months in elk. Most incubation periods are 2 - 3 years. [Cont. on 19]

Numbers, Data, Graphs, and Charts = DMAP Control

HERE AT DMAP CONTROL WE DEAL with numbers on everything—hunters, licenses, harvest, budgets, reports, ratios, averages, etc. In an attempt to present DMAP data in a more understandable manner for sportsmen, the annual *Deer Data Book* has been published in various formats. We know how to interpret the data, but do we explain them adequately? If you do not understand what you see and read in the deer book, please call or e-mail. Although we receive questions on many topics, less than 10 have come to us regarding data since the deer book was first published.

DATA FROM SPORTSMEN: There is absolutely no way to place a monetary value on the information our agency has received from sportsmen participating in outdoor activities in Mississippi. Surveys, questionnaires, daily-use permits, and DMAP data have all been used to benefit the resource and those of you who enjoy the resource. Season frameworks, bag limits, either-sex opportunities, and harvest recommendations are all influenced



DMAP Control
Bill Lunceford
DMAP Coordinator

by interpretation of biological data. Hopefully, the benefits you receive are worth the time and effort it takes for you to provide us with data.

HOW CAN YOU CONTINUE TO HELP?

Presently, an annual sportsman license costs \$32, or slightly less than 9 cents per day to hunt and fish every day of the year in Mississippi. IF licenses were increased to \$50, the daily cost would increase to a whopping 14 cents per day! Bad expensive, huh? This cost is negligible compared to indirect costs, including your hunting “wheels”, 4-wheeler, rifle with scope, shotgun, gas, ammo, insulated clothes, annual dues, and “payback” to the spouse anytime a new one of these is acquired.

Do you get the point, dollar-wise? A license increase, although not currently proposed, would increase our ability to manage wildlife resources, while adding very little to the total cost of hunting.

How much effort would it take to make a toll-free 3-minute phone call? That is approximately how much time each call would take to report your deer or turkey using the proposed Tele-check Program. The information gained from reasonable compliance would give biological information never before available. How would this information be used? It would provide timely harvest and age structure data for deer and turkeys at the county level. Also, Tele-check would provide a tool for enforcement to monitor bag limit compliance. Like information currently being gathered, this would help us to better manage Mississippi's wildlife for the benefit of the resource and you. Will you comply? Will you advocate compliance by your family, friends, and associates? Making Tele-check mandatory will not ensure compliance. Ultimately, it is up to you. **WI**

Enhancing the Wildlife Potential of Your Backyard

By Daniel Coggin

ENHANCING WILDLIFE HABITAT in our backyards is one way to improve the environment and at the same time, our wildlife viewing potential. We can attract and observe our favorite wildlife species without leaving our homes. Not only is it beneficial to us, but it is also a good way of introducing our children to the enjoyment of observing and helping wildlife. Below is a step-by-step plan on how to create a productive and attractive environment for many backyard wildlife species.

When planning a backyard wildlife project, there are several steps you should follow to insure success. The first step is identifying which wildlife species you wish to attract. Because wildlife species

have different habitat requirements, your success in attracting wildlife depends on how closely you can incorporate a species' habitat requirements for food, cover, water and space into your backyard.

Once you have decided which species you wish to attract, the next step is identifying all of the existing plants, shrubs, and trees in your yard. Some things to note when making your inventory are the condition of the plants, whether they are evergreen or deciduous, whether they are a valuable wildlife food plant, and how much shade



they provide. If you have trouble with identifying a plant, your local county forester or wildlife biologist can help.

After completing your plant list, the next step is sketching your yard with emphasis on noting existing plants, buildings, utility lines, pathways, and roads. This sketch will help with laying out future plants, shrubs, and trees. Once your sketch is done, it will be time to add valuable wildlife plants to your plan. Pay close attention to which wildlife plants you add and try to include only those that are native to your area. Some common native Mississippi plants are listed at the end of this article.

Using native vegetation is logical since these plants are adapted to your area's climate and soil type. Also, native plants typically require

less water and maintenance than non-native species.

Not all plantings have to be done at once. A gradual process will be less taxing on the pocketbook since you are spreading your costs over a longer time period. After planting, it is important to watch and evaluate growth.

■ **SOME PLANTS BENEFICIAL TO BACKYARD WILDLIFE:** Trees: White Oak, Red Oak, Black Walnut, Hickory, Black Cherry, Dogwood, Hackberry, and Persimmon.

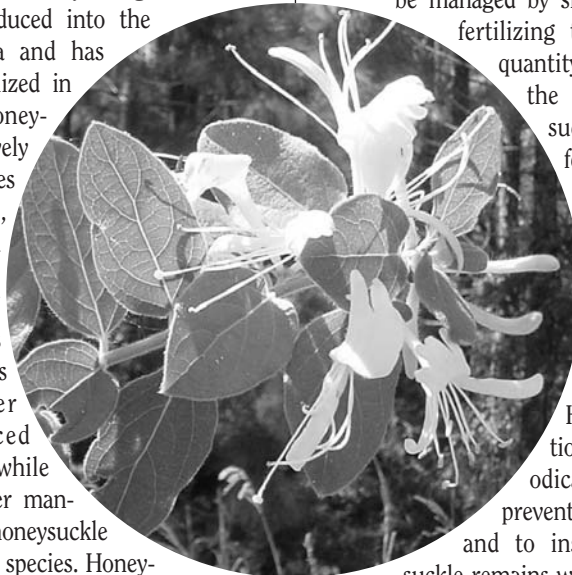
Shrubs: Sumacs, Elderberry, Wild Plum, Chokecherry, Cotoneaster, and Wild Azaleas. Vines: Wild Grape, American Bittersweet, Virginia Creeper, Trumpet Creeper, Honeysuckles, Blackberry, and Dewberry. Other plants: Sunflower, Marigolds, Thistles, Asters, Millet, and Milkweed. **WI**

Native Vegetation Profile: Japanese Honeysuckle

By Randy Browning

EACH YEAR I AM ASKED NUMEROUS times, "What single species can be planted that will meet all of the nutritional needs of white-tailed deer?" As far as I know, no such plant exists. However, a plant that comes close is Japanese honeysuckle (*Lonicera japonica*). Japanese honeysuckle is a woody evergreen vine that was introduced into the U.S. from Asia and has become naturalized in the South. Honeysuckle is relatively hardy and thrives along streams, fence rows, field borders, and in young stands of timber. Farmers and foresters often consider this introduced plant a pest, while white-tailed deer managers consider honeysuckle a choice browse species. Honeysuckle leaves and seeds are also utilized by other wildlife such as rabbit, quail, turkey, and song birds.

Well managed patches of honeysuckle can produce quality, year-round forage. Honey-



suckle is a high quality forage with protein contents ranging from 9 to 20 percent and a digestibility of 75 percent. Protein content is dependent upon season and soil fertility with the highest levels reported during the cooler months of the year. Managed honeysuckle patches have also been reported to produce from 2,480 pounds to over 3,000 pounds of forage per acre. Existing honeysuckle can be managed by simply liming and fertilizing to increase both quantity and quality of the forage. Honeysuckle should be fertilized in early spring and again in early fall with 150 pounds per acre ammonium nitrate and 300 pounds per acre 13-13-13. Hardwood vegetation should be periodically removed to prevent excessive shading and to insure the honeysuckle remains within the reach of foraging deer.

Honeysuckle is a hardy plant, but it is difficult to establish on sites with high deer densities or where subjected to frequent burning. Within these constraints, honey-



suckle seedlings should be planted in a wire enclosure that will protect the root-stock while allowing deer to browse on the new succulent growth. Plots can be protected from frequent burning by establishing fire lanes around them. We have found that constructing "honeysuckle fences" within the boundaries of a cool or warm season food plot will alleviate problems with both over-browsing and burning. On several of our wildlife management areas, we have constructed "honeysuckle fences" two feet wide, 4.5 feet tall and 100 feet long out of 2" x 4" welded wire. Honeysuckle seedlings, purchased or transplanted from the wild, should be planted at one foot intervals during late winter or early spring to insure sufficient rooting prior to the dry season. Once the seedlings have become established, fertilize at the above mentioned rates. Be careful not to over-fertilize. For an area of this size, only 0.69 pounds of ammonium nitrate and 1.37 pounds of 13-13-13 would be required.

Honeysuckle will not meet all the nutritional needs of white-tailed deer, but it can produce substantial quality forage on a yearly basis if it is properly established and/or maintained. **WI**

FOOT & MOUTH DISEASE

[Cont. from 2] the continued spread of FMD in the UK have included the slaughter of over 119,000 cattle, sheep, and swine. Further extensive measures to control FMD have included the closure of national parks as well as public footpaths to eliminate the human spread of the

virus from farm to farm. There have been no efforts to document the disease in wildlife populations in these areas.

The U. S. currently enjoys FMD-free status. This disease of livestock and wildlife has not been present in the U. S. since 1929. But due to the significant disease presence in the UK and France, the U. S. Department of Agriculture (USDA) has requested that U. S. livestock producers and veterinarians closely monitor susceptible animals. Precautionary measures to promote good biosecurity have been recommended. In addition, the USDA has restricted importation of live ruminants, wild swine, and uncooked meat products from the UK.

These preventive measures are so critical because an outbreak of FMD in the U. S. would directly affect wild ruminants and feral swine by causing clinical disease or death. Furthermore, wildlife might be indirectly affected if identified as, or suspected to be, reservoirs or disseminators of the virus. For example, more than 22,000 deer were slaughtered following the 1924 FMD outbreak in California. Wildlife-related control measures that might be implemented to prevent the spread of FMD include depopulation of susceptible wildlife species, closure of hunting seasons in affected areas, and restriction of access to public and private lands in affected areas. **WI**

THE RUB

[Cont. from 2] exist here, but I firmly believe we examine issues from the correct perspective. We try to examine issues from the standpoint of what is best for the resource, as well as for user groups. Our stance is not always popular, but we will continually strive to make recommendations on every issue based on the perpetual health and well-being of the resource. When the day comes that all stakeholders in a wildlife issue reach conclusions based on the best interest of the resource, the wildlife resource will be the winner. **WI**

Call Us!

1-800-5GOHUNT

to purchase a
Mississippi hunting
or fishing license.

TELE-CHECK UPDATE

[Cont. from 1] centralized database. When an individual buys a license at a sporting goods store or Wal-Mart, the license agent will input the information directly into a computer and a printer will instantly generate the new license. Once a sportsmen's information is in the system, future licenses can be purchased without the hunter's information being re-entered into the system. Therefore, POS will make buying and selling hunting and fishing licenses more efficient. Sportsman license holders will still be able to renew their license by mail.

The new POS license system will allow Tele-check to become a reality. POS will print the Tele-check required harvest report card directly on the new hunting

The Harvesting reporting and license databases will be linked, allowing the Agency to tie harvests with individuals.

licenses. Also, the harvest reporting database will be linked with the license database. This will allow the Agency to tie harvest with individuals and provide a tool for monitoring bag limit compliance.

At the time of the public hearings, the actual cost to implement POS and Tele-check and how the Agency was going to pay for it was unknown. Recently, the Agency signed a contract with a vendor who will provide both systems. POS will cost \$1.52 and Tele-check will cost 18 cents for every license sold. The total transaction fee per license sold will be \$1.70. This money goes directly to the vendor to pay for the development and implementation of POS and Tele-check. The MDWFP will pay the entire transaction fee for all lake permits and half the transaction fee (85 cents) for all other licenses sold. The other 85 cents will be charged to the license buyer. Therefore, once the POS license system is established, sportsmen will pay an additional 85 cents for each license

purchased except for lake permits.

The POS and Tele-check systems currently are being developed and will not be fully operational until after the 2001-02 deer season ends. The Agency will inform hunters and fisherman throughout the state once the systems are developed and final decisions are made on implementation.

Exempt licenses also were discussed at the public hearings. POS and Tele-check are not dependent on exempt hunters and fisherman (those over 65 or under 16 years old, disabled, or who own land) being required to purchase a license. The joint wildlife and enforcement committee that developed Tele-check recommended to the Agency that exempt hunters be required to comply with the harvest reporting system. This would greatly increase the information obtained on deer and turkey harvest and would further enhance our monitoring and management capabilities. Exempt hunters could be provided a harvest report card free of charge or they could be sold an exempt license with the harvest report card being part of the license. Legislative approval is necessary to charge a fee for exempt licenses.

Another advantage of selling an exempt license is it allows the MDWFP to increase the amount of federal dollars received. All state wildlife agencies receive federal dollars from the excise tax placed on buying guns and ammunition. This money is apportioned to the states partly based on their number of hunting licenses sold. Since Mississippi does not have licenses for our exempt hunters we lose federal dollars, approximately ten dollars per additional hunter. An exempt license fee only has to be enough to cover the administrative cost of issuing the license. Through POS this cost is \$1.70. The MDWFP has not yet determined if exempt hunters will be required to comply with Tele-check or if the Agency will recommend to the Legislature that exempt hunters be required to purchase a license for a minimal fee. **WI**

BAITING

[Cont. from 1] more, while 27% want the fine increased to \$250-\$499, and 21% want the fine increased to \$100-\$249, as shown in Figure 2.

The results for all 6 mail survey questions about baiting are in the table shown below. Also, don't forget to visit the MDWFP website to see survey results about the hunter opinion website poll and the Tele-check website poll. **WI**

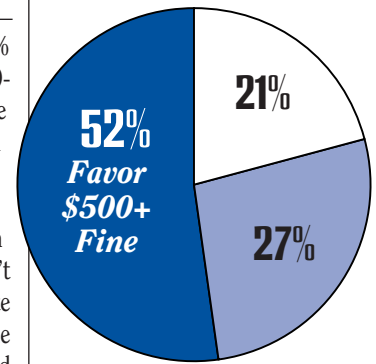


Figure 2

2001 Baiting Survey Results		MS Deer/Turkey License Buyers	MCWTF Members	MS DMAP Members	MS Bowhunters Members
■ Do you support or oppose a change to hunting regulations that would allow hunting deer over bait in Mississippi?	Strongly Support	25%	22%	31%	21%
	Somewhat Support	11%	9%	8%	9%
	Somewhat Oppose	9%	8%	8%	9%
	Strongly Oppose	54%	59%	52%	60%
	No Opinion or Dont' Know	1%	2%	1%	1%
■ Do you support or oppose a change to hunting regulations that would allow hunting turkeys over bait in Mississippi?	Strongly Support	6%	5%	10%	10%
	Somewhat Support	5%	5%	6%	5%
	Somewhat Oppose	6%	9%	5%	8%
	Strongly Oppose	80%	71%	72%	69%
	No Opinion or Dont' Know	3%	10%	7%	8%
■ How much should the fine be for illegally hunting deer over bait in Mississippi?	\$0	17%	15%	23%	18%
	\$25 - \$99	13%	12%	12%	13%
	\$100 - \$249	15%	20%	14%	19%
	\$250 - \$499	19%	18%	14%	19%
	More than \$500	36%	35%	37%	31%
■ How much should the fine be for illegally hunting turkey over bait in Mississippi?	\$0	7%	9%	14%	13%
	\$25 - \$99	8%	9%	8%	12%
	\$100 - \$249	15%	19%	15%	17%
	\$250 - \$499	18%	22%	15%	22%
	More than \$500	52%	41%	48%	36%
■ AGREE OR DISAGREE: Hunting over bait negatively influences non-hunter attitudes towards hunting.	Strongly Agree	52%	54%	47%	56%
	Somewhat Agree	15%	14%	18%	16%
	Somewhat Disagree	12%	7%	9%	8%
	Strongly Disagree	15%	17%	18%	12%
	No Opinion or Dont' Know	6%	8%	8%	8%
■ AGREE OR DISAGREE: Hunting over bait is not considered fair chase.	Strongly Agree	49%	57%	51%	61%
	Somewhat Agree	16%	14%	10%	12%
	Somewhat Disagree	14%	8%	13%	9%
	Strongly Disagree	17%	17%	22%	16%
	No Opinion or Dont' Know	4%	4%	4%	2%
		(n=910)	(n=754)	(n=205)	(n=211)

Quality Brood Habitat Means More Turkeys

CLOVER ENHANCES TURKEY HABITAT: If you are interested in improving turkey habitat on your property or hunting club, now is the time to be making important management decisions. Most land managers think about white-tailed deer when planting their fall food plots. But, cool season plantings can be beneficial to wild turkeys, too. Planting clovers in the fall will supplement the diet of hens prior to and during nesting and provide excellent brood rearing habitat when eggs begin hatching in mid-May.

Lack of quality brood habitat is the main factor limiting turkey populations on most properties. Newly hatched poults need to eat a tremendous number of insects to obtain the amount of protein that is necessary to meet nutritional requirements for rapid body growth and feather development. Without proper nutrition, poults are more vulnerable to mortality. Since more than half of poults that successfully hatch die before they are



four weeks old, providing adequate, quality brood habitat is the best opportunity for managers to increase turkey numbers on their property.

Brood habitat is characterized by herbaceous vegetation (plants without woody stems) that provides abundant insects, is less than two feet tall, and has enough open ground to allow young poults to walk and feed freely. Both forested and non-forested habitats, when managed to benefit turkeys, can provide vegetative communities that will be used by hens with poults. One of the easiest

Spittin' & Drummin'

Ron Seiss

*Wild Turkey Program
Coordinator*



ways to provide brood habitat is to plant clovers in food plots or other openings. A combination of clovers that includes crimson, one of the ladino varieties or Tripoli, and red or arrowleaf will provide an abundance of seeds, insects, and foliage that can be used by turkeys throughout the year. Also, the clovers will be heavily used by deer during spring and summer when bucks are growing antlers and does are pregnant.

In an effort to enhance brood habitat across the state, the Mississippi Chapter of the National Wild Turkey Federation initiated a fall seed subsidy program that provided a mix of crimson, arrowleaf, and Tripoli clovers to

their members at a reduced cost. The Mississippi Chapter also donated to the MDWFP more than 1,500 pounds of the clover mix to be planted on all wildlife management areas in the state.

TURKEY MANAGEMENT ADVICE

AVAILABLE: What can I do to have more turkeys on

my property? If you want answers to this question, contact either of the MDWFP Turkey Program Coordinators. Our phone numbers and e-mail addresses are listed on the cover of this newsletter. One of the most enjoyable aspects of our jobs is to travel all over Mississippi and provide assistance and information about turkey biology and management to anyone interested in wild turkeys. We routinely meet with landowners and hunting clubs to evaluate existing habitats and make specific recommendations for improvements. The Turkey Management Assistance

Program, where cooperators collect biological data during their spring gobbler hunts, is also available. This information is summarized in a report for your property and is used to monitor the turkey population and evaluate management decisions. A written, comprehensive turkey management plan can be developed for your property and we can provide assistance to help you implement the plan. Our services are free of charge and are only a phone call away. Let's work together to benefit the wild turkey, and in turn, all turkey enthusiasts.

ACORN PRODUCTION IN TEN YEARS OR LESS!?! The hardwood regeneration research being conducted by Dr. Paul Kormanick, who works with the U.S. Forest Service, should excite anyone interested in wildlife and hardwood management. Dr. Kormanick has developed a protocol for growing native oaks that will produce acorns in less than ten years. These "super" oaks will not only provide food for wildlife in a much shorter time than traditional regeneration methods, they will also become harvestable timber quicker.

Dr. Kormanick takes acorns produced from native oaks grown in the wild and plants them in a specific soil composition under nursery conditions. The seedlings are monitored closely and receive fertilization and watering as necessary to optimize growth. After about one year, the seedlings are pulled and measurements are taken on height, diameter and root development. Seedlings that meet established criteria for determining tree quality will be planted in the wild. Approximately 40% of the seedlings will not meet the minimum criteria and will be discarded. By using high quality seedlings, planting them in full sunlight, and controlling woody competition, Dr. Kormanick has successfully grown 17 species of oaks—all native to the Southeast—that have produced significant numbers of acorns by age ten.

The wildlife and timber benefits of planting "super" oak seedlings are tremendous. The MDWFP is currently working with Dr. Kormanick to adopt his hardwood regeneration techniques in Mississippi. We will keep you updated on the progress of this program.

WILD TURKEY PROGRAM CURRENT ACTIVITIES: The MDWFP statewide turkey program is continually working [Cont. on 14]

Following Wild Turkeys Through the Seasons

— *In Our Southern Pine Forests.*

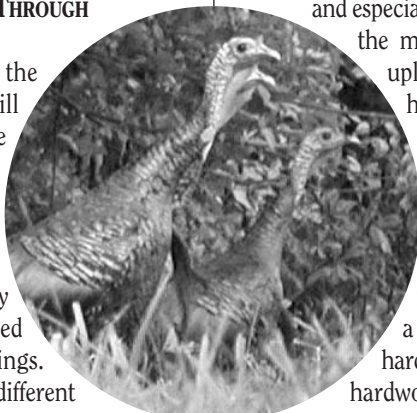
ARE YOU A HUNTER, LANDOWNER, or landmanager with an interest in having wild turkeys in your favorite block of woods? If your dealings have landed you in an area having pine trees, whether they are naturally regenerated, mixed with hardwoods, or plantations, you will want to understand what turkeys need and “look for” in our southern pine ecosystem to survive and maintain their populations.

The scientific community, thanks to sportsmen and other wildlife supporters, has accumulated decades of wild turkey research and findings in southern pine forests. We will present some of research’s landscape level findings that could help turkey enthusiasts in our state to manage their property for turkeys and other wildlife.

FOLLOWING TURKEYS THROUGH THE SEASONS...

■ **Summer:** During the summer, turkeys will readily use certain pine forests. Some research has shown that they prefer these areas during the summer—especially when the piney woods are interspersed with managed openings.

However, among the different pine forest types, those with wide stocking densities (e.g., 10’ x 10’ or 12’ x 12’) that have been thinned and then prescribed burned will provide quality habitat for turkeys and many other wildlife species. Of these piney woods, turkeys prefer thinned timber stands that are 15 years of age or older. In fact, research has shown that they avoid pine plantations that are 6 to 13 years old. In pine plantations, this time period is typically when the stand is too thick for access by turkeys or the upper pine canopy



has closed and very little light reaches the ground. This lack of light prevents herbaceous ground vegetation from growing, which in turn provides very little food or cover for wildlife.

However, if a stand is managed properly, these piney woods would be thinned, allowing for a new burst of understory growth to occur. Periodic prescribed burns will stimulate new growth and prevent the understory from becoming too thick for turkeys to use.

■ **Fall/Winter:** In general, most of the research has found that turkeys avoid pine plantations and piney habitats during fall and especially winter. Turkeys spend the majority of their time in upland and bottomland hardwoods and field-edges during winter. They probably favor these areas because they are searching for a source of carbohydrates found in hard mast from a variety of oak and other hardwood species. Because

hardwoods along creeks and rivers provide an excellent source and diversity of mast food types, it is a good idea to maintain or establish streamside management zones, where harvest of trees is avoided or limited, from a minimum of 50 to 75 yards on both sides of creeks and rivers. Because turkeys and other animals are dependent on hard mast during fall and winter and also heavily use hardwood forests throughout the year, it is crucial for landowners to maintain mast producing hardwoods. In pine dominated ecosystems,

Turkeys prefer thinned pine stands that are 15 years of age or older. Research shows they avoid plantations that are 6 to 13 years old.



the greater the amount of the land base with a hardwood component (bottomland hardwoods, upland hardwoods, hardwood-pine stands and pine-hardwood stands), the better the overall habitat quality for turkeys.

■ **Spring:** Following winter, turkeys will jump right into the midst of spring with “love” on their minds. While gobblers will be trying to find mates, hens will have the additional and more complicated task of locating suitable habitat for nesting and brood rearing. They will seek a quality nesting spot that is relatively close to a good area for poults to find and catch plenty of insects. Availability of insects will mean life or death to young poults during their first 2 weeks of life.

For all these reasons, turkeys will utilize a wider variety of habitat types during the warm season. In pine plantations, nesting hens will favor areas that have been thinned 3 to 5 years earlier and burned the same year following the thinning. Nesting hens will also select clearcuts and seed-tree cuts that are less than 10 years old, if the understory vegetation is not too thick, as well as mature pine and mixed pine/hardwood stands. When raising poults, hens prefer habitat that has dispersed openings which comprise about 12 to 25% of the landscape. In general, hens with poults favor non-forested openings instead of forest understories when searching for insects to meet their high protein requirement. One study found 25 times more insects in openings than in forested understories. Broods prefer openings maintained between ankle and knee high and also favor widely spaced plantings, sparse forest mid-story, and herbaceous ground vegetation.

WHAT MAKES THE ‘BEST KIND’ OF TURKEY WOODS?

For those with an interest in wildlife, understanding wild turkey research can help us make informed management decisions. With wildlife in mind, even if it [Cont. on 14]

Obituary for a Friend... (Fine-feathered)

By Randy Spencer

I RECENTLY RECEIVED THE NOTIFICATION of the passing of a casual acquaintance from nearly 15 years ago. We only met once, and he really did not make a particularly strong impression at the time. But in his obituary I saw the evidence of a remarkable life.

Actually the obituary was in the form of a banded bird recovery report. Throughout most of the 1980's I served as district biologist in the Delta. One of my major emphases at the time was duck banding. Through the massive mallard reward banding projects and the routine annual banding efforts, we literally banded thousands of ducks. Volumes of data on population structure, body condition, and migration chronology were added to the knowledge base. We received hundreds of recovery reports from the U. S. Fish and Wildlife Service's banding lab at Patuxent, Maryland, and plotted recovery locations on a continental map to see for ourselves what migration patterns were. So, what made this one duck stand out?

After moving into the administrative office in Jackson in 1989, my banding career essentially ended. For several years, I continued to receive recovery reports about birds I banded previously. By the mid-1990's they became a rarity and eventually stopped, entirely. It seemed that the banding chapter had ended for me. So imagine my surprise when I opened a report earlier this year and saw some once familiar codes.

Duck number 1187-98689 was an AOU 1320, the species code for mallards. It had an 05-4 age-sex code, meaning it was a second year male when

originally marked. The original banding location latitude-longitude code was 335-0905, which I immediately recognized as what was then known as Bolivar County Lake, near Rosedale. I had seen it all before, numerous times. Nothing seemed

How many thousands of hail calls, comebacks, hen greetings, quacks, & feeding calls he ignored — how many hunters he frustrated along the way

remarkable until the recovery date and banding date jumped off the page at me. It seems old 1187-98689 was not recovered until January 14, 2001, but he had been banded on January 26, 1987.

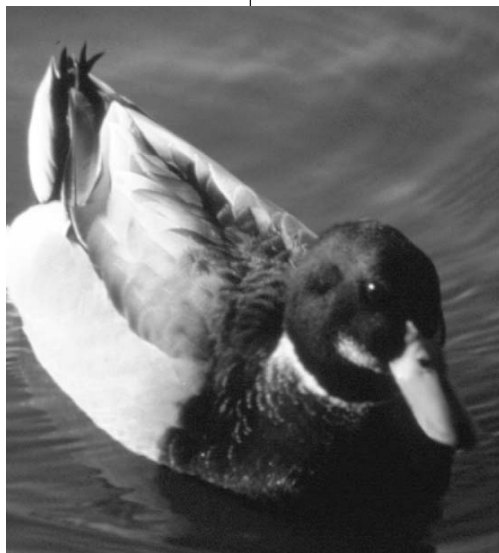


Photo by Jean Hunt

Since he was in his second year when banded, he was hatched in 1986. The duck was almost 15 years old when taken by a hunter near Coldwater, Mississippi. To put this into perspective, consider that this bird had survived the trip up and down the Mississippi Flyway a staggering 29 times. I can only speculate on how many thousands of hail calls, comebacks, hen greetings, quacks, and feeding calls he ignored, or how many hunters he frustrated along the way. He must have been one of the smartest mallards to ever pass through Mississippi en route to the Louisiana marshes. I was obviously very lucky to ever get him into a trap, but not so lucky as the hunter who finally did fool him. Or, maybe it was suicide over some long-broken pair bond? **WI**

New DMAP Logo Makes its Debut

THE DEER MANAGEMENT Assistance Program (DMAP) recently unveiled a new logo. The pen and ink drawing of the buck in the logo is the artwork of Dr. Grady E. Williams Chair and Professor of the Department of Biological Sciences at Delta State University. A signed and numbered limited edition of 500 prints is available from him.



The basic outline is a reproduction of an antler pedicel from a buck housed in the research facility at Mississippi State University. Use of the pedicel was granted by Steve Demarais, Ph.D, a deer ecologist with Mississippi State University.

Lance Cooper, GIS Specialist for the MDWFP, developed the design. Sportsmen can expect to see the logo as assorted products are made available to promote the Mississippi DMAP. The Mississippi DMAP program has been hailed throughout the United States as the first and one of the most effective programs of involving sportsmen in deer management. **WI**



If you are not receiving this newsletter and would like to be added to the mailing list, or if you have comments, please contact us at:
MDWFP/Wildlife Issues/1505 Eastover Drive/Jackson, MS 39211-6374

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report wildlife violations

Fox in Mississippi: Some Interesting Facts on the Sly

TWO FOX SPECIES OCCUR IN MISSISSIPPI. The red fox (*Vulpes vulpes*) is much better known, partially due to its well-deserved reputation for cunning that dates back at least as far as Aesop's Fables. Red fox also prefer more open habitats and are more likely to live in close proximity to humans, so they are seen more often. They have a thick, fluffy, reddish-blond winter coat that makes them prized furbearers. They also have black trim on their ears and tail, black stockings on their legs, a white tip on their tail, and white under their chin, neck, and belly. This flashy combination frequently makes these beautiful canids the subject of wildlife photographers, so they get more public exposure.

Gray fox (*Urocyon cinereoargenteus*) use brushy woodlands and shrubby habitat on hilly, rough, or broken terrain, so naturally they are less frequently seen. They are actually sometimes even mistaken for red fox because of the rusty-red coloration of their necks, shoulders, and bases of their ears. But the remainder of their coat is almost uniformly salt and pepper gray, except for white underneath and a blackish stripe down the top of the tail. People who get the rare opportunity to see these reclusive animals up close in their winter pelage realize that those patterns are strikingly handsome.

Red fox are generally only slightly larger than grays. Weights for reds are usually in the 10-12 pound range, while grays are typically 8-11 pounds. Grays have shorter legs, but stockier bodies, so the apparent size difference is deceptive. Their muzzles and ears are also shorter, and their eyes are dark while those of red fox are yellow or amber in color. Both species have a rather large gland on the upper portion of the tail that is responsible for their characteristic "foxy" odor. Like other canids, both red fox and gray fox have strong claws which are not retractable. Gray fox are unique among their canine relatives, however, in that they are able to climb trees.

Although fox are capable predators, they are omnivorous. They eat a wide variety of plant and animal matter based on availability. Mice, voles, insects, rats, rabbits, and ground-nesting birds are among the common prey. Berries, seeds, and fruits from a wide variety of native and cultivated plants are also important

food sources. Eggs of birds and reptiles are used readily. Carrion is consumed, too, and scavenging may be an important foraging strategy. Large animals, such as deer, which are obviously not preyed on directly, often show up in food habit studies. Occasionally, livestock and poultry depredation is attributed to fox. This is usually in the spring, associated with the food demands of growing litters of pups. Chickens and sheep are most vulnerable, but modern farming practices have greatly reduced these occurrences.

The breeding season for fox is late winter, with the peak falling between late January and early March. The red fox cycle is generally just a few weeks ahead of that of grays. The gestation period for both species is around 51-54 days. The average litter size for reds and grays, respectively, is 5 and 4. Pups, which weigh 3-4 ounces at birth, remain at the den for the first month of life. By 10 weeks of age they wander short distances on their own, and by 12 weeks begin exploring different parts of their parents' home range. By early fall, dispersal begins with males seeking new territories sooner than females.

Adult gray fox home ranges in Mississippi were determined, through the use of radio telemetry, to average about 900 acres. Most reported home ranges for red fox are well in excess of 1,000 acres. The only telemetry data available for a red fox from Mississippi indicated a range size of just over 1,600 acres. Territoriality among red fox is well documented, but gray fox were once considered to be more tolerant of members of their own species. Research in Mississippi, though, showed not only a lack of overlap between territories of red and gray fox on adjacent ranges, but also between gray fox neighbors. Gray fox pairs would be expected to share home ranges and, indeed, a female's range was documented to be entirely within the much larger range of her mate. Interspecific competition with coyotes is par-

In the
Wild

Randy Spencer
Wildlife
Coordinator



ticularly important for red fox, because they are frequently out-competed and displaced, or sometimes even directly killed. The increasing use of suburban habitats by red fox is thought to be a response to this competitive pressure.

In the early 1980's, the reported harvest of red and gray fox, combined, by hunters and trappers in Mississippi was over 20,000. Due primarily to the decrease in fur value, which resulted from the European Economic Union's ban on importation of fur from countries where leghold traps are legal, the reported harvest is now only a few hundred. With few significant natural predators, limiting factors other than harvest are now regulating population levels of these and many other furbearing animals, even in areas where habitat quality



remains good. This results in wider oscillations in population cycles. Red fox are especially vulnerable to mange and canine parvo enteritis. Gray fox are better able to resist mange, but canine distemper can cause devastating epidemics. When population levels are high, interaction among individual animals increases along with the potential for transmission of these and other diseases. Significant population reduc- [Cont. on 19]

Waterfowl Indicators Signal Perplexing Decline

FALL FLIGHT PREDICTION: Waterfowl surveys indicate that our continental duck population estimate is 36.1 million for 2001. Last year's estimate was 41.8 million, a decline of 14%. Total waterfowl numbers are still above the long-term (1955-2000) average. The mid-continent mallard population this year declined 6% compared to last year. The mallard population drives the Adaptive Harvest Management process, which flyway biologists use to set bag limits. These mallards nest in prairie habitats in sections of Canada and the U.S., use the Mississippi Flyway as their travel corridor, and ultimately winter in Mississippi.

The decline in waterfowl numbers has perplexed waterfowl biologists, because water conditions and pond numbers on the nesting

Cupped & Committed

Scott Baker
Waterfowl Program
Coordinator



lations may continue for many more years, but we know that this trend probably will not remain the same for long. Because nature goes through cycles in precipitation, a drought is inevitable. Mississippi sportsmen must do their part to insure that ducks wintering in Mississippi return to nesting grounds in optimal condition. This is important for maximizing reproductive potential so that we'll have more returning to Mississippi



next hunting season. Keep in mind that waterfowl management is a continuous activity that must be performed every year.

grounds were greater than last year. Waterfowl biologists theorize that these ponds have been wet for so long that they are beginning to stagnate, making them less productive. During a typical drought cycle, vegetation grows in these ponds until significant rainfall fills them with water. This growth in vegetation increases the productivity of ponds by providing food sources such as seeds and invertebrates. These food sources benefit adult birds and their young by helping replenish body reserves that adults have expended during migration and egg production. The young require a high protein diet of invertebrates for growth and survival.

During recent years, we have enjoyed high waterfowl populations. High waterfowl popu-

lations may continue for many more years, but we know that this trend probably will not remain the same for long. Because nature goes through cycles in precipitation, a drought is inevitable. Mississippi sportsmen must do their part to insure that ducks wintering in Mississippi return to nesting grounds in optimal condition. This is important for maximizing reproductive potential so that we'll have more returning to Mississippi

next hunting season. Keep in mind that waterfowl management is a continuous activity that must be performed every year.

DUCK STAMPS: Duck stamp prices increased from \$5.00 to \$10.00 on July 1, 2001. Most waterfowlers know that a State duck stamp is required to hunt ducks, but do not know what this money is used for. By law, this money is earmarked for waterfowl management. State statute 49-7-167 states: "All revenue shall be used for projects approved by the commission (MDWFP Wildlife Commission) for the purpose of protecting and propagating migratory waterfowl and for the development, restoration, maintenance or preservation of wetlands. Provided, however, that none of such funds shall be expended for administrative salaries."

This money generated by duck hunters who hunt in Mississippi will benefit ducks and hunters in our state. In the past, projects funded by duck stamp revenue have included: repairing wells and maintaining levees on

MDWFP wildlife management areas, installing water control structures on public and private lands, and conducting waterfowl research through Mississippi State University. Often this money is matched by project partners to get more bang for the buck. The Mississippi Partners Project is a great example where duck stamp money is matched by contributing partners such as Delta Wildlife, Ducks Unlimited, U.S. Fish and Wildlife Service and Wildlife Mississippi. This unique partnership provides technical guidance and free water control structures to landowners wanting to manage their lands for waterfowl. More than 90,000 acres are under management to date. This could not have been done solely by any one partner.

During the month of July 2001, 35,934 duck stamps were sold. About 50,000 are expected to be sold by the end of the 2001 duck season. Mississippi duck hunters should have great sense of satisfaction knowing that they are supporting waterfowl management through their duck stamp purchases!

WATERFOWL LAW ENFORCEMENT

OFFICER OF THE YEAR: John McFerrin, District 1 conservation officer, was selected as Mississippi's Waterfowl Law Enforcement Officer of the Year. Officer McFerrin works on John Bell Williams WMA and Canal Section WMA along the Tennessee-Tombigbee Waterway. He regularly maintains more than 100 wood duck boxes, traps and bands wood ducks for research, manages greentree reservoirs, plants agricultural crops for waterfowl, and manipulates moist soil impoundments while still performing his enforcement duties. John truly loves to do his work for the ducks. If you get the opportunity to tell John "Thank You," please do so. He is a great asset to the sportsmen of Mississippi. **WI**

Call Us!

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*to purchase a Mississippi
hunting or fishing license.*

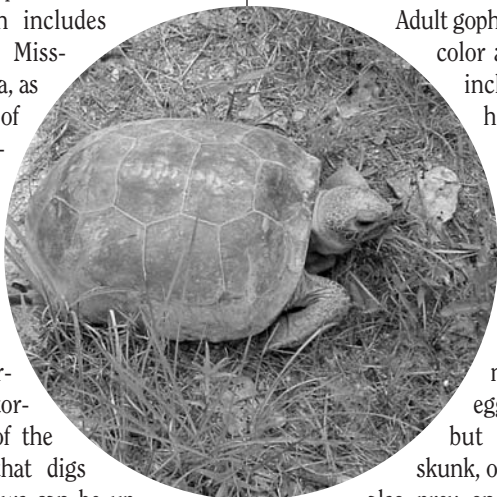
The Gopher Tortoise in Mississippi

IN SOUTH MISSISSIPPI, MANY have heard of the gopher tortoise, or as it is more commonly known, the gopher. Stories abound about people catching gophers for food. One older man told me how his family used to dig gophers out of their burrows when he was a child. "Gopher stew" he called it... "pretty good," as he remembered. Today, gopher stew is a thing of the past—or at least it should be.

On July 7, 1987, the U.S. Fish and Wildlife Service listed the western population of the gopher tortoise as threatened under the Endangered Species Act. The western population includes those tortoises in Mississippi and Louisiana, as well as those west of the Mobile and Tombigbee Rivers in Alabama. The gopher tortoise is also on the state endangered species list in Mississippi.

The gopher tortoise is the only tortoise species east of the Mississippi River that digs burrows. The burrows can be up to 15 feet long and are usually straight and unbranched. They provide protection from temperature extremes, fire, and refuge from predators. Tortoises prefer well-drained sandy soil because of the ease of digging burrows. Availability of this soil limits the tortoise's range in Mississippi to the lower 14

counties of the state. Over 40 species of animals are known to use gopher tortoise burrows. These include the eastern indigo snake, which is a federally threatened species, and the gopher frog, which is a species of concern. Other species include diamondback and pygmy rattlesnakes, eastern hognose snake, and several species of toads.



Adult gophers are a dull brown color and usually 6 to 15 inches long. Adults have few predators other than man, but predation on their eggs and young is high. Over 90% of nests are destroyed annually. The primary predator on eggs is the raccoon, but armadillos, fox, skunk, opossum, and snakes also prey on gopher eggs. Fire ants are thought to have a major impact on freshly hatched gopher tortoises.

In Mississippi, one of the greatest challenges to restoring gopher tortoises is the isolation of mature animals due to habitat fragmentation. Tortoises need abundant herbaceous vegetation for food. An open

canopy of trees and little or no shrub cover is needed to allow sunlight to reach the forest floor. Fire suppression in pine forests has allowed shrubs to grow up and block sunlight, restricting the growth of plants that would be used for food. Pine plantations often have closed canopies that block sunlight. Suitable habitat is often isolated with no means of interaction between populations.

Regeneration of longleaf pine forests to benefit the gopher tortoise on public lands in southern Mississippi is an ongoing practice. Desoto National Forest, as well as Camp Shelby, incorporate gopher tortoise management into their forest management practices. However, most land within the gopher tortoise's range is privately owned. Proper longleaf forest management for the restoration of gopher tortoises should be encouraged on private and public lands.

Gophers are often taken illegally, but people soon realize that they do not make the best house pets. Once a tortoise tries to dig a burrow in the living room floor it is often released, sometimes well outside of its natural range. This animal is then either isolated from others of its kind, or dies from exposure. By educating the public about the effects of taking gophers for food or pets, we may be able to help restore populations. Many people do not realize the effect that losing a few individuals can have on the population. Because numbers in the state are so limited, every gopher lost could have an enormous impact on population viability. **WI**



By educating the public about the effects of taking gophers for food or pets, we may be able to help restore populations.

The MDWFP is an equal opportunity employer and provider of programs and services. If anyone believes they have been subjected to discrimination on the basis of political affiliation, race, color, national origin, marital status, sex, religion, creed, age, or disability, they may file a complaint alleging discrimination with either the Mississippi Department of Wildlife, Fisheries and Parks, Office of Administrative Services, 1505 Eastover Drive, Jackson, MS 39211-6374, or the U.S. Equal Employment Opportunity Commission, 1801 L. Street, N.W. Washington, D.C. 20507.

Mississippi Bobwhite Quail Populations on Decline

By Dave Godwin
& Dr. Wes Burger

THE DECLINE OF BOBWHITE quail populations in Mississippi and across the South has been well documented. The decline has been linked primarily to widespread changes in land use practices during the past 30 years. While much is known about the bobwhite quail and its management, many significant questions remain. To address these questions, the MDWFP has cooperated with Mississippi State University to develop one of the nation's leading quail and small game research programs.

The following is a list of some of the MSU quail research projects funded or co-funded by the MDWFP:

- Evaluate effects of bobwhite quail management on Black Prairie WMA
- Economic impact of bobwhite hunting in Mississippi
- Bobwhite response to land use and vegetative changes on Copiah County WMA
- Effects of field border management practices on bobwhite populations

- Bobwhite habitat use and reproductive success in managed old field habitats in Mississippi
- Effects of discing and burning on vegetative structure and invertebrate abundance in CRP fields
- Reproductive success of bobwhite on Cameron Plantation, Mississippi

The decline of the quail population has been linked primarily to widespread changes in land use practices during the past 30 years.

- Effects of radio-transmitter on body-condition, harvest rate, and survival of bobwhite on Divide Section WMA
- Cooperative quail and small game habitat development on multiple-use lands
- Response of mammalian predators to quail habitat management

While these research projects have not single-handedly brought back Mississippi's quail

population, they have given us new insight into factors that are limiting the birds in today's landscape. Many of these projects have provided management information that is currently being used to increase local quail populations on numerous public and private lands in Mississippi. Additionally, management implications from these studies have been incorporated into federal Farm Bill programs (such as the Conservation Reserve Program, Wildlife Habitat Incentives Program, etc.) giving Mississippi landowners opportunities to improve quail habitat while obtaining federal cost-share funds.

Field research to answer quail management questions is still ongoing in Mississippi. Current quail research continues to focus on cost-effective management practices that benefit quail. If you would like additional information on the Mississippi Quail Research Program, contact Dave Godwin, Small Game Coordinator, at 662-325-5119. **WI**

DR. WES BURGER is an avian ecologist at Mississippi State University and cooperates with MDWFP on many projects.

SPITIN N DRUMMIN

[Cont. from 8] to monitor and manage the resource in the best interest of wild turkeys, wildlife, and wildlife enthusiasts. Recent work activities include:

- Developing a detailed strategic plan to guide the turkey program during the next several years
- Compiling, editing and validating data from more than 20,000 turkey hunts during the 2001 spring gobbler hunting season
- Providing turkey management advice to private landowners, MDWFP wildlife management areas, U.S. Forest Service and Corps of Engineers

- Making presentations on turkey biology and management at numerous workshops and public meetings
- Coordinating the annual brood survey to monitor reproduction
- Developing Tele-check, a telephone harvest reporting system that will provide turkey and deer harvest information at the county level
- Coordinating the Mississippi Chapter of the National Wild Turkey Federation's Super Fund program and assisting with the development of a 5-year strategic plan for the Chapter
- Conducting and analyzing multiple surveys to determine attitudes towards legalizing hunting turkeys and deer over bait
- Working with Mississippi State University on recently completed turkey research projects and planning future projects
- Writing articles on turkey biology and management for various media sources. **WI**

FOLLOWING TURKEYS

[Cont. from 9] is a secondary priority behind wood production, a landowner can make a difference by maintaining quality habitat for wildlife. A landowner, especially during the planning stage prior to harvesting timber on their property, can choose to "carve" their

Prior to harvest, landowners can choose to "carve" their property into many different habitat compartments.

property into different habitat compartments. With turkeys and most wildlife, a well-dispersed variety of habitat types is most desirable. This is especially true in areas where landowners have decided to establish pine plantations. Valuable wildlife habitat types include well-dispersed tracts of hardwoods, mixed pine-hardwoods, older age

class pine stands that have been thinned and burned, open lands (such as gated and planted roadways, pastures, agricultural fields, food plots, etc.), and streamside management zones that are at least 50 to 75 yards wide on both sides of a creek or river. If you manage your land accordingly, you should have an excellent chance of being able to accommodate and enjoy some of Mississippi's healthiest and hardest wildlife populations.

Consulting with a professional wildlife biologist before altering habitats on your property will ensure you make management decisions that best meet your objectives. If providing quality habitat for wild turkeys is your objective, contact the MDWFP Turkey Program at 662-234-0890 or 601-824-9077 for assistance. We'll gladly meet with you to make recommendations and/or write a management plan. **WI**

Inform Us!

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Drought's Over: 2001 Yields Favorable Weather, Finally!

AFTER 2 CONSECUTIVE DROUGHT years, Spring and Summer of 2001 have produced weather conditions more favorable to quail and other small game species. While it is wrong to assume that weather has been a primary factor in the long term decline that bobwhite quail have suffered throughout the Southeast, we do know that extreme weather conditions (like severe drought or excessive rainfall) can have notable impacts on these birds and other wildlife species. The relationship between bobwhite quail populations and rainfall can best be observed in the arid western portions of the species' range (South Texas, Western Oklahoma, etc.) where quail hunters experience "boom or bust" cycles in bird numbers. During years of adequate rainfall, western bird hunters enjoy bountiful harvests, but in drought years coveys are few and far between.

Here in Mississippi, and most of the Southeast, moderate weather patterns generally have less of an impact on quail populations. However, during the past 2 summers, research in Mississippi, Georgia, and other states has documented the effects of serious drought conditions on quail reproduction in the South.

Severe drought can influence quail directly and indirectly. Direct impacts of drought involve shortening the quail reproductive period. Quail are capable of several nesting attempts per year. In Mississippi, quail might begin nesting as early as May, with renests commonly occurring well into September. In a normal year, we can expect as many as 40% of the year's quail chicks to be hatched in August and September. During drought years, heat-stressed birds often "shut-down" reproduction by mid-summer. During hot dry summers, researchers have documented quail abandoning nests, heat-related embryo mortality, and premature incubation of eggs.

Indirect impacts are related to how drought influences native and planted vegetation. During drought years, dry summer vegetation tends to harbor fewer insects, which are an important food source for quail chicks. Additionally, seed production, soft and hard mast, and the nutritional quality of the plants themselves can be negatively impacted. This

Small Game News

Dave Godwin
Small Game Coordinator



can limit food availability and quality for quail, rabbits, and many other wildlife species. Finally, poor vegetative growth may reduce useable wildlife cover, which can influence survival of many species.

Better rainfall conditions for most of Mississippi should result in improved quail reproduction and habitat throughout most of the State this year. Already, news of good quail hatches and more successful habitat work have been reported from many areas throughout the State. Hopefully, this will result in an increased number of covey finds for hunters this winter!

FALL HABITAT

WORK: Those interested in improving habitat for quail, rabbits and other small game should be in the field this fall long before the start of the hunting seasons! Habitat management for small game and other wildlife is a

year-round process. Fall is one of the best times to conduct strip-disking, which is a technique used to maintain herbaceous cover to benefit quail, rabbits and other wildlife. While strip-disking can be conducted in spring or fall, timing influences the types of plants that germinate in disked areas. Generally fall diskings favors beneficial forbs (such as ragweed) and native legumes (like partridge pea), while spring diskings stimulates growth of native grasses and agricultural weeds. Information on how to implement strip-disking is available from the Small Game Coordinator, as well as most County

Extension Service offices. Fall is also the time to prepare fire lanes to be used in prescribed burning during the winter and early spring.

The importance of food plantings for small game is frequently misunderstood. If you are not managing your land to provide year-round habitat requirements for wildlife, food plots might not have much of an impact. However, once you have a comprehensive management program in place, supplemental food plots can be used to serve specific goals and objectives. Land managers should plan now for winter plantings of trees and shrubs, as well as early spring plantings like partridge pea and kobe lespedeza. Many traditional fall plantings for deer are also utilized by rabbits and can provide quality brood-rearing cover for quail. Cool season mixes of clovers and cereal grains, such as wheat and oats, benefit deer and small game. Use of ryegrass in fall plantings is generally not as beneficial to small



game. Ryegrass tends to choke out other vegetation in the plot and forms a dense mat of vegetation during the following summer which limits use by small quail chicks.

Remember that MDWFP personnel can provide technical assistance with all wildlife habitat management. Contact your local District Biologist or the Small Game Coordinator for more information.

WHAT ABOUT FIRE ANTS? The effect of red-imported fire ants on bobwhite quail populations has been a contentious issue within the wildlife community for *[Cont. on 23]*

Oh, the Utter 'Gall' of that Wasp!

MOST OF US HAVE SEEN THEM, THEY ARE THE WARTY-LOOKING GROWTHS THAT OCCUR IN OAK TREES. GALLS ARE MORE VISIBLE IN THE WINTER

when the leaves have dropped from the host tree. Most larger red oaks will have at least a few galls attached to the limbs. Occasionally, larger, mature oak trees in pastures will be laden with the hardened galls.

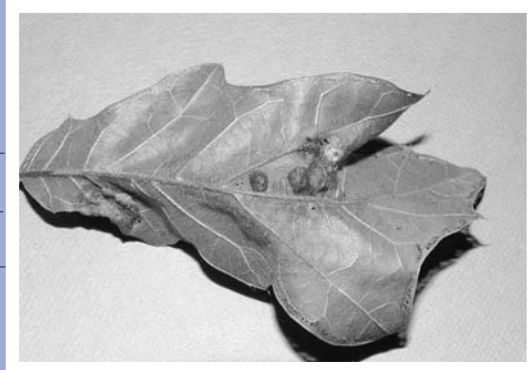
According to forest entomology literature, oak galls are caused by several species of gall wasps. Amazingly, most oak species have their own species of gall wasp, each of which has a slightly different life cycle. The appearance of mature galls will vary dependent upon the species of wasp involved in the parasitism of the oak tree.

Within the life cycle of the gall wasp several types of galls are produced. One type of gall is formed on the leaf of the oak, another on the stem and even another on the catkin or flowering portion of the oak tree. A typical gall wasp life cycle begins in the spring as overwintering females emerge from the mature galls and immediately begin to lay eggs in the leaf veins of the oak tree. The larvae in the veins then cause vein galls to form. Male and female wasps will emerge from the vein galls in midsummer. After mating, the

females will lay eggs on the oak twigs, causing twig galls to form. The twig galls may take up to two years to form and can grow to sizes of up to 6 inches. The mature female wasp emerges from the gall in the spring and the process is repeated. The hardened gall which has been the home for the female wasp then remains on the tree for an indefinite amount of time.

■ ■ ■

Photos shown (starting with uppermost and continuing clockwise) illustrate a typical life cycle of an oak gall; beginning in the form of a Leaf Vein Gall, then as a Leafy Bud Gall Rosette; next is a Maturing Oak Gall, and then finally, after up to two years, a Mature Oak Gall which can grow to sizes of up to 6 inches.



Biology of the Wild Hog in Mississippi

IN THE PREVIOUS EDITION OF *Wildlife Issues*, we looked at the introduction of the wild hog in Mississippi. In this edition, we will take an in-depth look into the biology of this controversial species.

The average wild hog in Mississippi is a mix of feral swine and wild European boar which were released around the state. The majority of wild hogs are black to “grizzled” in color. The average adult male (boar) is about 4 to 5 feet in length and stands approximately 30 inches at the shoulder. Adult females (sows) are slightly smaller. Adult males average about 250 to 300 pounds, with

are primarily used as weapons against other wild hogs and predators. Males have developed a “shield” on their shoulders that help protect them from their opponent’s tusks. These shields can be up to 2 inches thick and have been known to stop a hunter’s bullet or arrow.

The explosion of wild hog numbers across the state is due, in part, to its prolific breeding capacity. A sow can breed at 6 months of age, but 8 to 10 months is usually the norm. The average estrous cycle of the wild hog is similar to that of its domestic relatives and averages 21 to 23 days. The period of estrous, or “heat,” is also similar to the domestic hog,

with 48 hours considered typical. Once bred, the gestation period usually lasts 115 to 120 days with the sow giving birth or “farrowing” (farrow is derived from the old English term “feah” meaning “young pigs”) 4 to 6 piglets. However, under good conditions 10 to 12 young are possible. Studies have shown that

in years of good hard mast production, the proportion of reproductively active females is higher. Thus, reproduction is closely tied to available food resources. Without hunting and under favorable habitat and climatic conditions, the average life expectancy for a wild hog is 4 to 5 years. However, they can live up to 8 years of age.

Sows are able to have 2 litters per year with peak farrowing occurring in late fall and early spring. The late fall period corresponds with the acorn drop and the early



Males have developed a “shield” on their shoulders that help protect them from their opponent’s tusks.

spring peak coincides with spring “green-up.” Studies have shown that the spring farrowing period is when the peak of production occurs for the entire year.

After birth, the young piglets depend on the sow for nourishment until they are weaned at 2 to 3 months. Following birth sows will join other sows and their young in groups called “drifts.” Males are mostly solitary individuals with no established home range. The only time they associate with other hogs is during the breeding season.

Another factor contributing to the hog’s recent population explosion is its ability to eat just about anything. The wild hog is omnivorous, meaning they will eat plant and animal matter. Studies have shown that forage selection by wild hogs is highly seasonal and dependent on availability. During spring and summer, the most important food sources are grasses, roots, and stems. In fall and winter, hard and soft mast account for the bulk of their diet. An adult wild hog can eat over 160 pounds of hard mast during a winter. With abundant hard mast, as much as 84% of a hog’s diet will consist of acorns. Hogs are also known to eat animal matter including other hogs, armadillos, white-tailed deer fawns, birds and their eggs, lizards, snakes, and amphibians. It is not known how much of these foods are predated or how many are scavenged as carrion.

In the next *Wildlife Issues*, we will look at ways of managing the wild hog through hunting and trapping. **WI**



some animals tipping the scales at 400 pounds or more. Females average about 150 to 180 pounds.

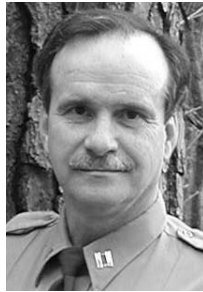
One of the distinguishing characteristics of both males and females is their large modified canine teeth called “tusks.” The true term for lower modified canines is “tushes,” while the upper modified canines are called “whettters.” The action of the lower tushes rubbing against the upper whettters is called “whetting.” It is this process that keeps the tushes razor sharp. These modified canines

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Fur Trapping in Miss.: Past, Present & Future

THE NUMBER OF LICENSED FUR trappers in Mississippi has fallen from a high of around 5000 in 1977 to about 300 per year for the last few years. The loss of interest in fur trapping is due to declining fur prices amid falling demand for fur products. The decline in trapping has led to high population levels for many furbearing species. At these population levels the activities of certain furbearers, such as beaver and raccoon, increasingly conflict with human activities. Beaver, while much admired for their engineering skill and the wildlife habitat that they create, sometimes flood roads, destroy man-made dams, and kill landscaping trees. Raccoons, which were



eliminating commercial trapping in some cases. Elimination of commercial trapping limits the wildlife manager's ability to manage game species such as turkey and quail, as well as rare and endangered species such as Mississippi Sandhill Cranes and Yellow-blotched Sawback Turtles.

During the past couple of decades, wildlife managers and many fur trappers have acknowledged that the long-term survival of traditional trapping depends on addressing the legitimate public concern for animal welfare by developing humane trapping standards.

DEVELOPMENT OF BEST MANAGEMENT PRACTICES FOR FUR TRAPPING

In 1996 the International Association of Fish and Wildlife Agencies (IAFWA) began a program to develop Best Management Practices

(BMPs) for fur trapping in the United States. This program was initially begun in response to European Union (EU) regulations which stated that countries exporting fur into Europe (where a large portion of U. S. and Canadian fur is sold) must either employ trapping methods that meet internationally agreed upon humane trapping standards or must prohibit leghold traps entirely. While Canada and the Russian Federations signed agreements with the EU, the United States did not, largely because



BMPs are needed to improve welfare among captured animals & also to reduce real & perceived problems associated with trapping.

jurisdiction for establishing trapping regulations is with the states, not with the federal government. The United States did manage to postpone the threatened ban, however, by agreeing to work toward developing humane trapping standards or BMPs.

WHY ARE BMPs NEEDED?

A BMP is a method to improve an activity by developing recommendations based on scientific information while maintaining practicability. The BMPs for trapping furbearers will be provided to state agencies and trappers for incorporation into trapper education and wildlife management programs. In addition to improving wildlife management in the United States, the research and resulting BMPs may be used by other countries to improve their programs. Furthermore, BMPs will be used by the United States to address international commitments to identify and promote the use of humane traps and trapping methods for capturing wildlife. BMPs are needed to improve welfare among captured animals, to reduce real and perceived problems associated with trapping, and to sustain regulated trapping as a wildlife management tool.

WHAT WILL BMPs LOOK LIKE?

BMPs are being developed for each of five regions of the U. S. to address ecoregional differences. BMPs will recognize that a given trap may be legally set to catch several species. BMPs will include descriptions of the best traps and recommendations for setting traps to maximize their performance and selectivity. BMPs are being developed using trap performance profiles that include animal welfare, efficiency, selectivity, user safety, and practicability.

BMPs—WHO, HOW, WHEN?

The Furbearer Resources Technical Work Group of the IAFWA is coordinating the BMP project in consultation with veterinarians and trapping experts from all regions of the country. BMPs will be made [Cont. on 23]



actually transported into some Mississippi counties in the 1930's to supplement dwindling populations, have also reached nuisance levels. In cities, overly abundant raccoons take up residence in attics, scatter trash, and spread disease. In rural areas, raccoons, skunks, coyotes, and other predators prey upon everything from gopher tortoises to quail.

Concern for animal welfare has led some states to severely restrict the type of traps that can be legally used, effectively

IN THE WILD

[Cont. from 11] tion follows, and the cycle repeats itself. Sporadic high population levels and associated disease outbreaks may also show up in occasional high road kill rates.

Different population monitoring techniques will be needed in the future to understand how fox populations respond to habitat changes, other species, and disease problems to insure protection through management. Although different factors than in the recent past are currently determining red and gray fox populations, these wild canids remain among the most beautiful and most intriguing of Mississippi's wildlife resources. **WI**

CURRENT DISEASES

[Cont. from 3] Animals affected with a TSE disease appear lethargic, become very thin, and drink, urinate, and salivate excessively. Loss of fear of humans, grinding of teeth and other behavioral abnormalities have also been observed. There is no known cure for the respective TSE diseases that affect animals or humans. They are progressive and always fatal. A defini-

Hunters should use rubber gloves when field dressing & skinning deer

tive diagnosis can only be made by the examination of brain tissue following death. Furthermore, the machine that is required to diagnosis the disease is not commonly available and is quite expensive.

There currently is no way to eradicate CWD from infected deer and elk populations. Efforts to minimize the spread of CWD have been limited to slaughter of the entire herd in game farm populations. The numbers are alarming. A recent report from Saskatchewan indicated a total of 29 infected herds of domestic elk. More than 4,600 game farm elk have been

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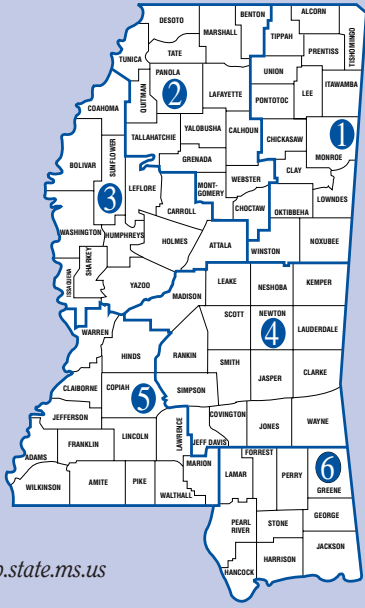
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slaughtered since March 2000. In natural cervid populations, the number one priority is to prevent the spread of the disease outside of the existing area. Within the affected area there are two goals of control efforts. One is to significantly reduce population numbers to minimize transmission. The other is to prohibit human interference such as supplemental feeding which concentrates animals.

Currently the TSE Advisory Committee of the Food and Drug Administration (FDA) and public health officials have reviewed all the scientific information available. They have concluded that there is no evidence that CWD in infected animals can be transmitted to humans. Further concern did arise in 1997-98 when CJD occurred in three young U.S. adults who had regularly eaten venison. This led to speculation, and some hysteria, that CWD could be spread from elk or deer to humans. However, the Centers for Disease Control and Prevention, the World Health Organization and the FDA reviewed the clinical and pathological studies of all of these cases and found no link to CWD. Considering the CJD infection rate of only about one in a million, that would still total 200 - 300 victims in the U.S.,

annually. With this number of victims, it is not surprising that several regularly consume venison. Additionally, media reports that have linked CJD to the consumption of squirrel brains and referred to CWD as "Mad Deer Disease" are also inaccurate sensationalism.

However, hunters should take some common sense precautions. While it is safe to eat deer meat, hunters should use rubber gloves when field dressing and skinning deer. They should also avoid handling or eating deer brains, spinal cords, spleens and lymph nodes. Mississippians who travel to Colorado or Wyoming to deer or elk hunt should take some extra precautions. If possible, process the animal where it was taken. In cases where the carcass and head are brought back to Mississippi, be sure to bury or dispose of the remains in an area so that contact with wild deer can never occur.

Canada confirmed that infected ranch elk originated from animals imported from the U. S. Since no definitive diagnostic live animal test exists that can identify CWD infected animals, Canada wisely banned all deer and elk imports in 1990. Bills are being introduced in the legislatures of Alabama and other states to increase the fine for

illegal importation and to prohibit bringing any cervid into the state. Although CWD has not been reported in Mississippi to date, we and the entire southeastern U. S. also must protect our wildlife resources by taking strong precautions against any practice that might facilitate the introduction of CWD or other wildlife diseases. Examples of such practices logically include not allowing importation and translocation of any cervids for any reason.

In summary, consider the following statement made by Dr. Slavinski in a recent Mississippi Morbidity Report. "There are no treatments and any animal, including any person, who gets a prion disease will die. This means that the only tool available to control it is prevention. When a first case appears, it will be too late to prevent it." **WI**



O'Keefe Wildlife Management Area Land Transfer

By Jason Ross

AS OF SEPTEMBER 2001, THE Mississippi Department of Wildlife, Fisheries and Parks (MDWFP) and the Mississippi Department of Corrections (MDOC) are in the final stages of a title transfer that will shift ownership of approximately 1,200 acres of land on O'Keefe Wildlife Management Area (WMA) in Quitman County from the MDOC to the MDWFP. Already a part of O'Keefe WMA, the tract is primarily com-

Future plans include reforestation, moist-soil management area development with Ducks Unlimited, & continuing agricultural production

posed of leased agricultural fields. The transfer will consolidate ownership and simplify wildlife management strategies on the WMA. Future plans include reforestation, moist-soil

management area development with Ducks Unlimited (DU), and continuing agricultural production.

Prospects are excellent for increasing the quality and quantity of annually flooded acreage for migratory waterfowl. For such a small WMA (approximately 6,100 acres), O'Keefe receives significant visitor pressure during waterfowl season. Previously, the 910 acre Green Tree Reservoir (GTR) was virtually the only place to view waterfowl and wading birds on the WMA. By creating moist-soil management areas, hopefully as much as 400 additional acres will be made available for increased recreational opportunities such as bird-watching and waterfowl hunting. Timetable and management plans are underway at this time to take advantage of this opportunity. This project will take some time and may occur in phases over the next 3 years.



This 2001-02 season marks the first time in 5 years that the entire GTR on O'Keefe WMA will be flooded. This time-frame was part of an agreement with the Mississippi Forestry Commission to allow regeneration prior to dormant season flooding of key bottomland hardwood tree species, such as Nuttall and cherrybark oaks, important to wildlife. After this year, the GTR will be placed on a flooding regime of once every 3 years to preserve long-term tree health while still providing waterfowl habitat and recreational opportunities.

Exciting things are happening this year on O'Keefe WMA as well as on other WMAs around the state. Please remember to thank the Mississippi Legislature and the MDWFP Administration for the projects that you like. Get to know the biologists in your district and support the area managers on the WMAs, who make positive things happen on the ground, so that we can collectively benefit the resource. **WI**

RECORDS PROGRAM

[Cont. from 5] deer harvested by John Cauthen in 1996 in Madison County. Antlers with large mass also draw attention. Two deer stand above the rest with base circumferences measuring 7 inches. One was harvested by Ed Varner in Montgomery County, and the other was harvested by Larry Morris in Madison County.

Because the Magnolia Records Program allows entries regardless of the year of harvest, several "old" mounts hanging up in hunting camps, lodges, and country stores were brought in to be scored. The oldest deer in the database was harvested in 1916 in Newton County. Another deer, har-



vested in 1938 in Sharkey County, came from land that is now known as the Delta National Forest. Numerous deer have been identified that qualify for the Pope & Young Records. Several other deer narrowly missed the minimum requirements for entry into the Boone & Crockett Records.

"I have received numerous phone calls from hunters across the state requesting information on how to get their trophy entered into the program," said Larry Castle, Deer Coordinator for the MDWFP. "Presently, we are only accepting deer into the program from official scoring sessions. Individuals or organizations interested in sponsoring a scoring

session in their area are encouraged to contact the MWF at (601) 206-5703 to get a copy of a scoring session application along with the list of provisions required of the host." Several scoring sessions have already been scheduled to take place in the near future. For additional information on specific times and locations contact the MWF.

"The best is yet to come," said Castle. "First, we have only scratched the surface with regard to the number of trophy deer that have been scored for the Magnolia Records Program. Almost 200 deer have already been scored and accepted in the Pope & Young Records Program. Most of these deer would automatically be accepted into the Magnolia Records Program if the hunter brings the deer along with the official Pope & Young scoresheet to a scoring session. The same

goes for Boone & Crockett bucks. Secondly, we are constantly updating the Magnolia Records Program website. We want to show everyone the quality of deer

We have only scratched the surface with regard to the number of trophy deer that have been scored for the Magnolia Records Program

that Mississippi can produce." If the rapidly growing interest in the Magnolia Records Program is any indication of Castle's statement, then the best is yet to come. **WI**

RICK DILLARD is a Wildlife Biologist for the US Forest Service and currently serves as Fish and Wildlife Program Manager for the Nation Forests in Mississippi.

Mississippi Black Bear Restoration Task Force



The mission is to restore ecologically viable & socially acceptable black bear populations in Mississippi.

THE BLACK BEAR WAS ONCE DISTRIBUTED throughout Mississippi and much of the entire United States. The bear served as a source of food and clothing for Native Americans as well as early European settlers. As a result of extensive clearing and conversion of woodlands and swamps for agriculture, development of urban/suburban areas, and over-hunting, bear populations and their distribution have been dramatically reduced. The bear is listed as endangered throughout Mississippi and federally threatened in approximately the southern two-thirds of the state. However, this bleak situation can be reversed. States such as Arkansas, Georgia, the Carolinas, and others have been successful in bear



U.S. Forest Service, and USDA Wildlife Services, as well as other federal and state agencies, private conservation groups, private timber companies, and concerned citizens. This organization is a part of the Black Bear Conservation Committee (BBCC) and addresses restoration and management issues of bears specific to Mississippi. By April 2000 the MBBRTF developed a mission statement and plan of action. The mission is to restore ecologically viable and socially acceptable black bear populations in

Mississippi. The plan identifies and prioritizes action items such as public outreach and education, conflict resolution, and funding that must be accomplished in order to successfully reach the goal of restoring a viable bear population to our state.



During the Fall of 2000, the MBBRTF was active in trapping, radio collar-

ing, and tracking female bears in Bolivar County. Four bears were trapped, including two females which were subsequently radio-collared. Also, four previously collared female bears crossed the Mississippi River from Arkansas into Mississippi. These six collared bears provided a wealth of new information. For example, we learned that female bears do cross the Mississippi River. In December 2000 and January 2001, all of

management efforts to the point that limited bear hunting provides recreational opportunities for sportsmen while helping to manage bear populations. The Mississippi Black Bear Restoration Task Force (MBBRTF) was formed in 1999 by the Mississippi Department of Wildlife, Fisheries, and Parks, Mississippi Museum of Natural Science (MMNS), Mississippi State University, U.S. Fish and Wildlife Service,

the collared females went back across the river into Arkansas. During Spring 2001, after the bears came out of their winter dens, three of the females that had been in Mississippi the previous fall had at least one yearling cub. These cubs had survived not just one, but two trips across the Mississippi River.

The MBBRTF is active in developing an educational outreach program for the public. To date, a video about black bears in Mississippi has been produced and will be played daily in the bear exhibit at the MMNS in Jackson. MBBRTF participants will also use the video and make educational presentations around the state. An educational poster entitled "Bears in Mississippi," an informational leaflet, and "educational trunks" that contain various outreach materials such as a bear hide and skull are being developed as part of the educational effort. The MBBRTF views education as one of our most important action items because bear restoration will not succeed without a well-informed public.

If you are interested in what the MBBRTF is doing and would like to contribute by making a monetary donation or participating in the various activities, contact Bo Sloan by e-mail at bo.sloan@aphis.usda.gov or by phone at 662-686-3157. **WI**

Bo SLOAN, District supervisor with USDA Wildlife Services, is Chairman of the Mississippi Black Bear Restoration Task Force.

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Declining Hunter Skills:

Desire for Quick, Easy Harvest Lacks Sport

WHAT IS DEER HUNTING TO YOU? Is it riding your ATV to a heated shooting house overlooking a green patch and waiting for the deer to come? Is this the way that you are introducing your children and grandchildren to deer hunting? If you answered yes to either of the preceding questions, you may not particularly care for the remainder of this column.

Wildlife biologists today have a serious concern for the future of deer hunting because of what we perceive as a decline in hunter skills. The desire to harvest a deer quickly and easily with no acquired skill appears to be growing, consequently, the ability to harvest a deer without the benefit of an unnatural attractant appears to be declining. We consistently receive criticism about perceived declining deer populations. A portion of this criticism originates from food plot hunters who base their perception of deer population density on the number of animals they observe while spending a hunting season overlooking a green field.

Do not misunderstand me. Supplemental plantings are an excellent method to provide high quality deer forage in late winter. These plantings also provide an opportunity to view and harvest antlerless deer, both of which are critical to some deer managers. Proper planting, placement, and rotation of

hunting pressure will optimize the effectiveness of hunting supplemental plantings.

You can follow this issue nationally as organizations such as the Boone and Crockett Club labor over issues such as the harvest of deer behind high fences. This issue permeates all methods of deer hunting. For example, the Pope and Young Club is regularly discussing the percent let-off of bows as modern archery equipment continues to “advance.” The popu-

larity of canned hunts is currently growing and state conservation agency efforts to outlaw these experiences are ongoing.

The concept of fair chase usually surfaces in these issues. Since my initiation into the field of wildlife resource management, I have heard that the State cannot legislate morality or hunter ethics. I accept that morality cannot be legislated, but to me, hunter ethics is a different

matter. First, one question must be answered. Is fair chase as it relates to hunting a hunter ethics issue? I certainly believe that it is and that fair chase must be legislated in some situations. There is nothing new or original in my thinking. We have been legislating fair chase for decades. For example, headlighting deer is not considered fair chase. It is illegal.

The opportunities provided by technology and dollars to harvest an animal is new.



Society has changed—
We live in the hurry-up-&
get-it quick age. It's only logi-
cal that this philosophy has
crept into the hunting realm

Some members of the hunting community warmly embrace these advances because they conveniently offer a means to take an animal with reduced hunter skills and a minimal investment of time.

Sure, society is changing. We live in the hurry-up-and-get-it-quick age. It is only logical that this philosophy has crept into the hunting realm. My concern is that it will erode time honored values and traditions associated with ethical hunting and hunters.

Since hunting for survival began thousands of years ago, skill has been an imperative for hunter success. Hunters learned animal behavior, how to “read” animal “sign” and weapon proficiency. Therefore, success was directly related to these acquired skills. Increasingly, this is not the trend today. We have a growing number of hunters who only have the ability to locate a green plot and hang a stand.

A case in point is the growing popularity of “attractants” which are available commercially. These products are touted as the “wonder” substance that will bring the deer to you. I have been going to a local discount store now for a decade and smirking at all the deer attracting gimmicks. One year I was so amused at the volume of products that I took pictures. This year I was appalled; they had to have another complete set of shelves to hold it all.

A second case in point is the interest in legalized baiting in Mississippi. Several of us have had the opportunity to attend public meetings where this issue has been discussed. One gentleman really amazed me. He asked publicly, “How are we going to teach our kids to hunt if we can't use corn?” What about all the deer feeders that are being sold? It seems that every sporting goods store, feed store and farm supply store now sells feeders to “help hunters, help the deer.” The disease dangers of feeding or baiting deer are more real today than any time in the past. There is aerosol, [Cont. on 23]

TRAPPING

[Cont. from 18] available to state wildlife agencies, trappers, and any other interested parties and will be incorporated into wildlife management programs and trapper education classes according to individual state needs and procedures. Funding for BMP development has been provided by a cooperative agreement between IAFWA and the United States Department of Agriculture's Wildlife Services program and through in-kind contributions by state wildlife agencies. Approximately \$1.7 million have been contributed to this project during the first three years. The first BMPs are expected by the year 2003.

THE FUTURE OF TRAPPING

Unfortunately, many professional trappers fear that traps or methods that they have used for decades or generations will be made illegal and therefore look upon the BMP

Many professional trappers fear that traps or methods that they have used for decades will be made illegal & look upon the BMP process with suspicion

process with suspicion. This suspicion does not appear to be entirely unfounded. It seems likely that trap testing may reveal that some favorite traps do not meet animal welfare standards and that certain states may legislate against their use. Mississippi currently has no plans to turn BMP recommendations into legislation but would probably consider such legislation if the ability to export fur depended on it. The position of the IAFWA and most state furbearer managers is that the loss of some traps is preferable to the likely alternative—the loss of all leghold traps. But not everyone agrees with that assessment. The National Trappers Association (NTA), which had been considered by the IAFWA to be a partner in the development of BMPs, recently withdrew their sup-

port, declaring, among other things, that the IAFWA had far overreached its original objectives. One participant in the BMP process described the NTAs withdrawal as “like watching one’s parents head toward a divorce that is in no one’s best interest...” While the BMP process may have originally begun in response to the threatened EU ban, most participants in the process now regard BMPs as the best hope for the future of commercial trapping and view the split between the IAFWA and the NTA as placing that already tenuous future on even shakier ground.

Some material reprinted from official IAFWA statement on development of BMPs. WI

SMALL GAME NEWS

[Cont. from 15] many years. Some managers and biologists have maintained that fire ants have little real impact on quail, while others assert that ants are the primary cause of bobwhite declines. After years of research, it appears the truth lies somewhere in the middle of the long-running fire ant debate. Dr. Wes Burger, of Mississippi State University, recently summarized research that has addressed the topic of fire ants and quail.

Burger notes that several studies have provided compelling evidence that fire ants can negatively affect quail populations under some circumstances. Fire ants seem to affect bobwhite populations through direct and indirect effects on chick survival. Direct effects include predation on pipping chicks, and reduced survival and weight gain of chicks that have been injured by ants. Indirect impacts involve fire ants’ influence on insect communities which provide food for quail chicks. Fire ants tend to reduce the number of species and overall populations of insects by competition and predation, which reduces quail foraging efficiency. Effects of fire ants on quail seem to be great-

est when polygyne ant colonies occur. These multi-queen colonies usually have significantly higher numbers of ants. Also, polygyne colonies are not territorial, so they occur in much greater mound per acre densities.

Several studies have provided compelling evidence that fire ants can negatively affect quail populations under some circumstances.

Burger does not agree with those who argue that fire ants are the primary cause of quail declines across the Southeast. “Clearly we have numerous examples across the region of quail populations being maintained at high levels even in the face of moderate to high fire ant densities,” Burger said. “The driving factor behind the long-term regional quail decline has been a dramatic change in land use practices across the Southeast,” he added, “and purposeful management can increase quail at the local level, even if fire ants are present. However, it is inaccurate to say that fire ants have no impact on quail. This is just one more factor that can negatively impact the birds. In some locations with very high fire ant densities, there is little doubt fire ants have exacerbated local quail declines.”

BOBWHITE QUAIL HUNTER SURVEY: The MDWFP encourages all quail hunters to participate in this important survey. Data sheets are provided to volunteer bird hunters so they can keep records of their hunts. The survey is an enjoyable way to keep up with your hunting activity, while helping the MDWFP monitor quail populations statewide. To help, please contact Dave Godwin, Small Game Coordinator, at MDWFP, Box 9690, Mississippi State, MS 39762, phone 662-325-5119, or by e-mail at dgodwin@cfr.msstate.edu. **WI**

HUNTING SKILLS

[Cont. from 22] saliva, excreta, and direct contact transmission of some really scary diseases out there today. So, how is feeding or baiting “helping” the deer?

We have an overpopulated deer herd in most of Mississippi. Agricultural damage by deer is a common occurrence. Deer numbers in urban settings are increasing, while problems such as Lyme Disease and deer/vehicle collisions continue. I have heard these facts given as justification to remove all the deer we can, any way that we can. This does not wash with me. I value the sport to much to support that justification.

Non-hunter opinions and perceptions must be considered in future hunting related issues. Support of sport hunting as the only means of managing deer populations is mandatory if we desire to be able to enjoy the privilege of hunting in the future. Non-hunters comprise about 80% of the residents in most states. Surveys consistently indicate that non-hunters support hunting if it is done ethically, professionally, and in a manner where fair chase is employed. In addition, non-hunters support hunting when the venison from the animal is efficiently utilized.

Solutions: I have nothing simplistic to offer. In my opinion, hunting skills must be preserved. Hunting where little or no skill is involved and fair chase is speculative will be viewed as unethical and will not be supported by the majority of citizens if hunting becomes a ballot box issue.

Finally, more of us as hunters should be learning the behavior of deer, studying the art of patterning deer, and becoming woodsmen again, rather than deer shooters. Have a great deer season and a safe deer season. **WI**

Call Us!

1-800-GOHUNT

to purchase a Mississippi hunting or fishing license.

West Nile Virus: Cause for Concern in U.S.



CONFIRMED CASES OF WEST NILE Virus (WNV) have received considerable media exposure during the past summer. A total of five human cases of WNV infection have been confirmed in the United States during 2001, with one human fatality reported in Georgia. Numerous animal cases have been positively diagnosed, mostly in crows and blue jays. Recent confirmation of WNV in Mississippi points to the need for residents of our state to be well informed regarding the disease.

infected birds. Humans and horses can also be infected. Public health risks associated with the virus are serious, as WNV has been connected with encephalitis outbreaks causing deaths in humans and horses.

Since being detected in birds in the New York City area in 1999, WNV has been confirmed in Connecticut, Florida, Georgia, Louisiana, Maryland, Massachusetts, Mississippi, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Virginia, and Washington, D.C. At the time of this print-

ing, confirmed cases of WNV in Mississippi have been limited to 9 horses in Lee County. While WNV is new to our state, the Mississippi State Department of Health reports that several mosquito-borne encephalitis viruses historically occur in Mississippi.

Field signs of WNV infection in horses have included stumbling and weakness, partial paralysis, or death. The influence of this virus

on chickens is still not fully understood, with current research projects focusing on this issue. While the virus has been isolated in "sentinel" chickens used in experiments, chickens and turkeys develop natural antibodies to the virus which seem to inhibit encephalitis.

Evidence of WNV in wild birds is not readily apparent until death. Reported clinical

signs have included difficulty in flying and loss of the ability to perch. Natural mortality of wild birds occurs at a high level, therefore the observation of occasional dead wild birds should not be alarming. In addition, the vector or carrier of this virus is the mosquito, therefore, human infection can not occur as a result of contact with infected birds. Danger to native game bird populations such as wild turkey and bobwhite quail appears to be insignificant. No mortality has been reported in game birds from any of the locations where confirmed outbreaks of WNV have occurred.

One of the best ways you can protect your family and animals from WNV is to decrease exposure to mosquitoes. Remove all unnecessary sources of water where mosquitoes can breed (old tires, buckets, wading pools, etc). Keep swimming pools clean and properly chlorinated, and periodically clean all animal watering containers.

The potential for exposure to hunters will be the greatest during the early fall. Hunters which will be in the field or woods prior to significant freezing weather should use repellants and dress to limit the possibility of infection. Despite preliminary reports, mosquitoes which can be a vector for WNV feed during both daylight and nighttime hours.

For additional information on the human health risks of WNV, visit the Department of Health and Human Services' Centers for Disease Control and Prevention website at www.cdc.gov. **WI**



WNV is a type of virus that causes encephalitis, or inflammation of the brain. Varying types of human and animal (mostly horse) encephalitis have been on the public health and livestock scene for many years. WNV has been detected in Africa, Asia, the Middle East, the Mediterranean, and most recently, the United States. WNV is spread by mosquitoes that acquire the virus from