

LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES

BOARD MEETING

DECEMBER 5, 1996

**GLYNN CARVER
CHAIRMAN**

BATON ROUGE, LOUISIANA

The following constitute minutes of the Commission Meeting
and are not a verbatim transcript of the proceedings.

Tapes of the meetings are kept at the
Louisiana Department of Wildlife and Fisheries
2000 Quail Drive

Baton Rouge, Louisiana 70808

For more information, call (504) 765-2806

AGENDA
LOUISIANA WILDLIFE AND FISHERIES COMMISSION
BATON ROUGE, LOUISIANA
DECEMBER 5, 1996

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MINUTES OF THE MEETING

OF

LOUISIANA WILDLIFE AND FISHERIES COMMISSION

Thursday, December 5, 1996

Vice-Chairman Perry Gisclair presiding.

Jerald Hanchey
Joseph Cormier
Daniel Babin
Jeff Schneider
Norman McCall

Secretary James H. Jenkins, Jr. was also present.

Chairman Glynn Carver was absent from the meeting.

Vice-Chairman Gisclair called for a motion for approval of the **November 7, 1996 Commission Minutes**. A motion for approval was made by Commissioner Schneider and seconded by Commissioner Hanchey. The motion passed with no opposition.

The next item, **Lease for Fossil Shell Extraction**, started with Mrs. Karen Foote stating Louisiana Dredging has a three year lease to dredge shell along Louisiana's central coast. Two of the three years have been completed with the minimum royalty being paid. They have written to the Department asking the performance bond be reduced to \$1 million which is equivalent to the minimum royalty due for the next year. The Legal staff and Undersecretary have been contacted with this request and do not have any objections. Commissioner Schneider asked if this has been done once before. Commissioner Hanchey stated this request was part of the agreement. Mrs. Foote then introduced Mr. Richard Koen. Mr. Koen stated this was the fifth time Louisiana Dredging was making this request. The obligation on a performance bond was to pay only the \$1 million minimum royalty for each year. The second year is complete and the minimum royalty has been paid. Mr. Koen said he appreciated the Commission's assistance. Vice-Chairman Gisclair asked if there was a need for a formal motion? Mrs. Foote stated a motion was done last year. Commissioner Hanchey made a motion to accept Louisiana Dredging's request. This motion was seconded by Commissioner Schneider and it passed with no opposition.

3-D Seismic Activity began with Commissioner Babin stating he was asked to put this on the agenda to open a dialogue on whether the wildlife and fishery resources were being impacted by this activity. A meeting was held prior to the Commission Meeting and Commissioner Babin asked one of the attendees to come forward and present their concerns.

Mr. Darrell Landry stated he was with the Tulane Environmental Law Clinic, and was representing the Louisiana Environmental Action Network, the Gulf Coast Commercial Fisherman's Coalition, the Organization of Terrebonne Fishermen and the Lake Pontchartrain Basin Foundation. He stated they have seen how 3-D seismic activity was affecting coastal wetlands and wanted to look into it further. A conflict was occurring between the operations of 3-D seismic and the operations of fishermen. He asked the Commission to bring together all interested parties to find the affect on fish and wildlife and how to solve this problem.

Secretary Jenkins stated this has been an issue of concern for the Department for a long time. He agreed with Commissioner Babin, and he did not want the Commissioners to feel the Department was not concerned about this. A lot of time, effort and money has been devoted to administering these programs, commented Secretary Jenkins. Commissioner Schneider asked what was the difference in the natural environmental damages with 3-D as compared to other types of seismic? Mr. Landry stated there was more traversing across the marshes when the 3-D charges were being placed. Commissioner Babin asked who with the Department was involved in the meeting? Mr. John Roussel stated he contacted one of the interested parties and asked that a meeting to discuss the concerns be held prior to the Commission Meeting. The consensus from that meeting was that all affected parties meet, discuss the concerns, see if solutions were needed and then come up with those solutions. Mr. Roussel suggested the Mineral Committee of the Commission be used as a forum to be involved in the process. A resolution for the Commission's consideration directing the Department to study the issue and report findings was included in the packets. Mr. Roussel read the Resolution. Commissioner Babin made a motion to adopt the Resolution and it was seconded by Commissioner Hanchey. The motion passed with no opposition.

(The full text of the Resolution is made a part of the record.)

RESOLUTION

LOUISIANA WILDLIFE AND FISHERIES COMMISSION

WHEREAS, the conduct of 3D seismic geophysical exploration activities in the marshes and water bodies of the state may cause injury to natural resources; and

WHEREAS, wildlife and fishery resources and their habitats may be impacted; now

THEREFORE BE IT RESOLVED, the Louisiana Wildlife and Fisheries Commission directs the Department to study these issues and report their findings and recommendations to the Commission.

Perry Gisclair, Vice-Chairman
La. Wildlife & Fisheries
Commission

Commissioner Schneider stated he requested the **Red Tide Report** because of the reports and phone calls he has received. Mr. Harry Blanchet stated the organism that causes red tide is a marine dinoflagellate, 1/1000 of an inch in size and an algae. This organism typically occurs in high salinity, warm areas and affects the nerves of animals. The animals then end up with respiratory distress and disorientation. Mr. Blanchet then explained why Louisiana was having a problem with red tide which included the movement of the water currents. An initial bloom was seen during November 1996 and the counts taken the first week of December showed the numbers were reduced in the affected area. Commissioner McCall asked what would it take to clear up an area once it was affected? Mr. Blanchet stated to open an oyster area, the cell count had to be below 5,000 per liter as well as other toxicology tests being done. Mr. Ron Dugas stated 5,000 cell counts per liter for oysters was set by the Food and Drug Administration for closure of shellfish areas. When the cell count reaches 200,000 to 300,000, concentrations of fish or birds could die; if that count reaches 1 million, then the water would have a red or brown coloration. Mr. Dugas felt the red tide was not a threat to the oyster resource. Commissioner Schneider asked how does this organism affect people? Mr. Dugas stated this organism concentrates in the intestines of an animal. Mr. Blanchet stated Texas and Florida are the main states that the red tide occurs in and Louisiana is protected by the Mississippi River. Commissioner Schneider stated he received reports of fish gasping for breath and felt from the report received, it may have been caused by the red tide. Mr. Dugas concluded stating hopefully the north winds would eliminate this organism and that it would not show up again.

The **Monthly Law Enforcement Report for November** was given by Col. Winton Vidrine. The following numbers of citations were issued during the month of November.

- Region I - Minden - 120 citations.
- Region II - Monroe - 154 citations.
- Region III - Alexandria - 126 citations.
- Region IV - Ferriday - 169 citations.
- Region V - Lake Charles - 215 citations.
- Region VI - Opelousas - 75 citations.
- Region VII - Baton Rouge - 186 citations.

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Seafood Investigative Strike Force - 83 citations.

Statewide Strike Force - 22 citations.

Oyster Strike Force - 114 citations.

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The grand total of citations issued statewide for the month of November was 2,110.

An Enforcement Aviation Report was also given by Col. Winton Vidrine. He stated for November 1996, enforcement pilots flew three airplanes a total of 70.3 hours for enforcement and 27.0 hours for the other divisions and were involved in issuing 20 citations.

Commissioner Babin stated, just as a reminder, the inshore shrimp season would close December 15, 1996 and the 100 count law would go back into effect within the 3 mile limit. Commissioner Gisclair asked what is a dowitcher, which was listed in the confiscations from Region 5. Commissioner Schneider asked how does this month's report compare to November last year and what was the comparison for citations written on Wildlife Management Areas.

Vice-Chairman Gisclair then asked if there were any **Division Reports**. Mr. Mike Olinde stated he had a slide presentation on events occurring in January 1997 on the woodcock. There should be roughly 100+ wildlife biologists visiting the State during this time. The woodcock is primarily hunted in the northern portions of the United States as well as in Louisiana. One of the main events will draw biologists from all over the United States as well as Europe. The primary breeding area for woodcocks is along the Great Lake states. Louisiana is considered one of the most important states in the country for wintering habitat for the woodcock. In Louisiana, the traditional area for woodcock is the lower Mississippi Delta and the Atchafalaya Delta. Woodcock habitat consists of open fields, edges, young fields but not mature forests. Other types of habitat for the woodcock would be bottomland hardwood with large stands of switch cane and the piney woods on the edge of a thicket. Four papers that would be presented were results of field work conducted on the Sherburne Wildlife Management Area. Mr. Olinde then explained the Woodcock Wingbee, Webless Migratory Bird Sub-Committee and Joint Meetings to be held in January.

Commissioner Babin asked, with the shrimp season closing on December 15, what areas would be kept open, if any? Mr. Brandt

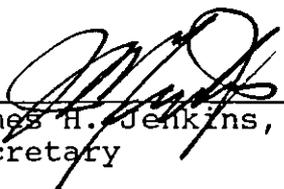
Savoie stated the Declaration of Emergency on setting the fall shrimp season also included a closing date for the state with the stipulation of leaving Breton and Chandeleur Sounds open until April 1, 1997.

After several minutes of discussion, Commissioner Hanchey made a motion to hold the **April 1997 Meeting** on Thursday, April 3, 1997 beginning at 10:00 a.m. in the Baton Rouge office. This motion was seconded by Commissioner Cormier and approved with no opposition.

Vice-Chairman Gisclair stated Mr. Brandt Savoie had secured a meeting hall for the **May 1997 Meeting Date and Location for Shrimp Hearing** in Thibodaux. A motion by Commissioner Babin set the meeting for May 1, 1996 beginning at 10:00 a.m. at Nichols State University in Thibodaux. This motion was seconded by Commissioner McCall and passed with no opposition.

Vice-Chairman Gisclair then asked if there were any **Public Comments**. Vice-Chairman Gisclair stated every year at this time one Commission member steps down and for 1996 that member is Commissioner Schneider. He then stated Commissioner Schneider is an outstanding Commissioner and has done a good job for the Commission and Department. A plaque was read and then presented to Commissioner Schneider. Secretary Jenkins stated he has known Commissioner Schneider for 15 years and he has the best education, background and interest in what he has done for the Commission over the past 6 years. Secretary Jenkins then thanked him on behalf of the Department. Col. Winton Vidrine expressed his appreciation to Commissioner Schneider for the support given to the Enforcement Division over the years. Then he introduced Lt. Wayne Brescher, Past President of the Wildlife Agents Association. Lt. Brescher began by also thanking Commissioner Schneider for his support and dedication over the past 6 years. Then on behalf of the Association, Lt. Brescher read and presented a plaque to Commissioner Schneider. Also presented to Commissioner Schneider was an Association's pen and pencil set and jacket. Commissioner Schneider thanked everyone on the Commission and the staff of the Department. He stated it was a real learning experience and hoped he contributed something to the State.

There being no further business, Commissioner Babin made a motion to **Adjourn** the meeting and was seconded by Commissioner McCall.



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Draft
Corrections made
12/10/96 - sch

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There being no further business, Commissioner Babin made a motion to **Adjourn** the meeting and was seconded by Commissioner McCall.

James H. Jenkins, Jr.
Secretary

JHJ:sch

OUTDOORS/SOCCER

Red Tide keeping oyster beds closed east of river

By **JOE MACALUSO**
Advocate outdoors writer

Louisiana oyster beds closed in November when a toxic algae invaded state waters east of the Mississippi River remains closed to harvest the Louisiana Wildlife and Fisheries Commission was told Thursday at its regular monthly meeting.

The algae, commonly known as "Red Tide," is rare in Louisiana waters, state marine fisheries biologist Harry Blanchet told the commission.

"Weather was the determining factor," Blanchet said.

"Apparently what happened was that a strong east wind blew the algae from Apalachicola Bay (Florida) where the algae is common."

State Oyster Study leader Ron Dugas said when state biologists detected the presence of the algae in the Lake Borgne, Rigolets, Lake Pontchartrain and Breton Sound, U.S. Food and Drug Administration regulations forced a shut-down of the harvest.

"The FDA demands a closure when the count reached 5,000 (algae) cells per liter," Dugas explained.

"To reopen, the count not only has to fall below that number, but there is also a requirement that other toxicology tests be done on the oysters in the affected area."

While Blanchet and Dugas said counts are getting lower each day, they had no prediction as to when the algae count would fall below the 5,000 level.

"This algae flourished in warm water where there is high salinity

levels," Blanchet said. "For the majority of the time our rivers prevent our coastal areas from having high-salinity (salt) levels, but not this time. We had a dry fall which increased salinity just prior to the strong east winds that came in early November."

"What will help is the change in weather. The water is cooling and rainfall is helping to decrease the salinity," Blanchet said.

The commission also approved a resolution calling for a Department of Wildlife and Fisheries study into 3D seismic activities in coastal areas, a geological practice used by drillers to find new oil and gas fields.

Tulane Environmental Law Clinic spokesman Darrell Landry said there are concerns about the damage 3D seismic work does to the coastal environment.

"3D places more (explosive) charges in the area to determine presence (of oil and gas) and because more charges are needed, there is the need to have more access to the marshlands."

"Therefore, there is more damage," said Landry, who claimed to represent the Louisiana Environmental Action Network, the Gulf Coast Commercial Fisherman's Coalition, the Organization of Terrebonne Fishermen and the Lake Pontchartrain Basin Foundation.

LDWF secretary Jimmy Jenkins Jr. said the department already monitors such seismic activity on departmental lands, and assured the commission that the concerned parties will be brought together and the LWFC will be advised on any meeting's outcome.

Jenkins said Office of Fisheries

assistant secretary John Roussel attended a meeting Monday to discuss seismic operations.

"It's apparent we need more lower-level discussion between the interested parties before we come back to the commission," Roussel said.

"We need to find out if there is a real problem, and, if there are, then we arrive at real solutions."

The seven-member LWFC also approved a reduction in the performance bond posted by Louisiana Shell Dredging, the St. Rose-based corporation which is in its last of a three-year contract with the LDWF. According to LDWF spokeswoman Karen Foote, the company has already satisfied the \$1 million-per-year payment for the first two years of the contract, and was seeking to reduce the bond's premium payment for the third year. The reduction was approved 6-0. Commission chairman Glynn Carver did not attend the meeting.

The LWFC also learned that department agents wrote 1,718 citations and an additional 392 on state wildlife management areas for a 2,110 total for November.

In other action, vice-chairman Perry Gisclair and Jenkins honored commission member Jeff Schneider from Robert Schneider, completed his six-year term at Thursday's meeting.

The commission also approved an April 3, 1997 meeting date for LDWF headquarters on Quail Drive, and a May 1 meeting in which the spring inshore shrimp seasons dates will be approved.

The May 1 meeting will be held in Peltier Hall on the Nicholls State campus in Thibodaux.

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Now til Christmas**

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Even
Smell
The
Freshness**

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Delivered within 5 days from the time they're cut.

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HOME & GARDEN
SHOWPL
for all seasons

Iraq beats Iran, 2-1, in Asian Cup

By **DILIP GANGULY**
Associated Press writer

STOCK UP FOR THE

COMMISSION MEETING
ROLL CALL

Thursday, December 5, 1996
Baton Rouge, LA
Wildlife & Fisheries Building

	Attended	Absent
Glynn Carver (Chairman)	—	<input checked="" type="checkbox"/>
Perry Gisclair	<input checked="" type="checkbox"/>	—
Jeff Schneider	<input checked="" type="checkbox"/>	—
Daniel Babin	<input checked="" type="checkbox"/>	—
Joseph Cormier	<input checked="" type="checkbox"/>	—
Jerald Hanchey	<input checked="" type="checkbox"/>	—
Norman McCall	<input checked="" type="checkbox"/>	—

Mr. Chairman:

There are 6 Commissioners in attendance and we have a quorum.
Secretary Jenkins is also present.

AGENDA

LOUISIANA WILDLIFE AND FISHERIES COMMISSION
BATON ROUGE, LA
December 5, 1996
10:00 AM

1. Roll Call
2. Approval of Minutes of November 7, 1996
3. 3-D Seismic Activity - Danny Babin
4. Red Tide Report - Jeff Schneider
5. Lease for Fossil Shell Extraction - Richard Koen, LA Dredging Company
6. Enforcement & Aviation Reports/November - Winton Vidrine
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Louisiana Dredging Company

120 Mallard Street Suite 300
St. Rose, Louisiana 70087
Phone (504) 468-3247 Fax (504) 468-3596

Ms. Karen Foote
Department of Wildlife and Fisheries
Post Office Box 9800
Baton Rouge, Louisiana 70898-9000

RE: Lease for Fossil Shell Extraction
from State Owned Water Bottoms
Dated as of September 14, 1994

Dear Ms. Foote:

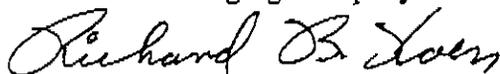
Paragraph eleven (11) of the above referenced lease required that a performance bond in the sum of three million dollars (\$3,000,000) be executed simultaneously with the execution of this agreement. The bond sum was fixed as the aggregate of the \$1,000,000 minimum annual royalty for the lease period of three years.

Louisiana Dredging Company requested, and was granted, a reduction of the first lease year, upon satisfaction of the minimum annual royalty for that period. Louisiana Dredging Company has now completed the second lease year and has satisfied the minimum royalty obligation for that period. We therefore request your concurrence with our understanding that we can now reduce our bond to the sum of one million dollars (\$1,000,000), which is the minimum annual royalty for the third lease year.

Thank you for your cooperation and assistance.

Yours very truly,

Louisiana Dredging Company



Richard B. Koen

RESOLUTION

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ENFORCEMENT CASE REPORT

NOVEMBER 1996

ENFORCEMENT CASE REPORT -NOVEMBER 1996

REGION 1

TOTAL CASES-120

WMA&REFUGES-23

12-Boating

7-Angling W/O A License

2-Fishing W/O Resident Pole License

1-Possession Of Untagged Oysters

5-Hunting W/O Resident License

4-Hunting W/O Non-Resident License

8-Hunting From A Moving Vehicle

3-Hunting W/Unplugged Gun

6-Hunt From Public Road Or Road Right-Of-Way

3-Hunt MGB W/O State Stamp

1-Hunt W/O Resident Big Game License

4-Hunt W/O Non-Resident Big Game License

1-Running Deer Dogs During Still Hunt Season

5-Hunt Or Take Deer Illegal Hours Or With Artificial Light

9-Hunt Or Take Deer From Public Road

2-Hunt Or Take Illegal Deer Open Season

1-Possession Over Limit Of Deer

1-Possession OF Illegal Taken Deer O/S

7-Failure To Wear Hunters Orange

4-Hunt Ducks W/O Federal Duck Stamp

Page (2)

REGION 1 CONT'D.

2-Hunt MGB W/Unplugged Gun

5-Using Lead Shot In Area Designated As Steel Shot

4-Hunt Doves Closed Season

1-Hunt MGB Without State Stamp

11-Not Abiding By Rules & Regs. On WMA

1-Not Abiding By Rules & Regs. On State Land

1-Illegal Possession Of Marijuana

2-Illegal Spotlighting From A Public Road

1-Littering

5-Operate ATV Vehicle On Public Road

1-Driving W/O Operators License

CONFISCATIONS:

1 sack of oysters, 4 rifles, 1 gun case, 4 ducks, 3 doves, 4 deer, 1 sack of oysters
destroyed.

TOTAL OF EACH CATEGORY FOR REGION 1:

12-Boating

1-Littering

9-Sport Fishing

1-Commercial Fishing

59-Hunting

16-MGB

22-Misc.

Page (3)

REGION 2

TOTAL CASES-154

WMA & REFUGES-59

3-Boating

1-Take Overlimit Of Game Fish

1-Sell Game Fish

6-Hunting W/O Resident License

6-Hunting W/O Resident Big Game License

2-Hunt W/O Non-Resident Big Game License

22-Hunt/Take Deer From Public Road

8-Fail To Comply With Hunter Orange Regs.

2-Hunt Deer Closed Area

6-Hunt Deer Illegal Hours

8-Hunt Deer From Moving Vehicle

3-Take Illegal Deer Open Season

3-Take Overlimit Of Deer

2-Possess Illegally Taken Deer

1-Not Complying With Hunter Safety Regs.

1-Selling Deer

1-Using Lead Shot In Steel Shot Area

1-Buying Fur Bearers Animal W/O License

Page (4)

REGION 2 CONT'D.

57-Not Abiding By Rules And Regs. On WMA

4-Criminal Trespass

1-DWI

3-Littering

6-Speeding

4-Operate ATV Public Road

1-Discharge Firearm Public Road

CONFISCATIONS:

**6 guns, 5 deer, 1-25 h.p. Johnson outboard, 1-8pt. mounted head, 1 mounted black bass,
1 mounted crappie, 2 shoveler ducks, 1 merganser, 2 gadwall, 1 teal.**

TOTAL OF EACH CATEGORY FOR REGION 2:

3-Boating

6-Public Assistance

2-Sport Fishing

70-Hunting

2-MGB

3-Littering

1-Fur Bearing Animals

57-WMA

16-Other

REGION 3

TOTAL CASES-126

WMA & REFUGES-33

6-Boating

1-Angling W/O License In Possession

1-Take Illegal/Undersize Black Bass

3-Failure To Comply W/PFD Requirements

11-Hunt/Take Deer Illegal Hours W/Artificial Light

7-Take/Possess Illegal Deer Open Season

1-Take/Possess Over Limit Of Deer

8-Hunt/Take Wild Quadrupeds Illegal Hours

4-Hunt/Take Non-Game Quadrupeds Illegally

7-Hunt Deer In Closed Area

1-Hunt With Unplugged Gun

14-Hunt From Moving Vehicle

12-Hunt/Take Deer From Public Road

6-Failure To Wear Hunters Orange

1-Possess Illegal Type Firearm

4-Hunt W/O Resident Basic License

1-Hunt W/O Resident Big Game License

2-Hunt W/O Non-Resident License

1-Hunt W/O State Duck Stamp

21-Failure To Abide By R&R On WMA

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REGION 3 CONT'D.

2-Hunt Ducks W/Unplugged Gun

5-Use Lead Shot In Steel Shot Zone

1-Hunt W/O Federal Stamp

4-Littering

2-Possession OF Marijuana

CONFISCATIONS:

17 guns, 1 flashlight, 4 spotlights, 2 ladder deer stands, 34 lead shot, 2 marijuana joints,

2 parcels marijuana, 1 brass smoking pipe.

TOTAL OF EACH CATEGORY FOR REGION 3:

6-Boating

1-Public Assistance

2-Sport Fishing

100-Hunting

8-MGB

6-Other

4-Littering

Page (7)

REGION 4

TOTAL CASES-169

WMA & REFUGES-117

5-Boating

3-Angling W/O A License

3-Fishing W/O A Pole License

1-Take Fish Illegally

7-Hunt With A Resident License

1-Hunt From A Moving Vehicle

3-Hunt With An Unplugged Gun

1-Hunt Wild Quadruped Illegal Hours

1-Hunt From A Public Road

15-Hunting Without A Resident Big Game License

2-Hunt Or Take Deer In Closed Season

2-Hunt Or Take Illegal Deer Open Season

5-Possession Of Illegally Taken Deer

1-Field Possession Of Deer Meat W/O Tag

1-Fail To Maintain Sex I.D.

13-Failure To Comply with Hunters Orange

1-Hunt Without A Muzzleloader License

1-Take Or Possess Spotted Fawn

3-Possess Over Limit Of Ducks

97-Not Abiding By Rules And Regs. On WMA

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REGION 4 CONT'D.

1-Illegal Spotlighting From Public Road

2-Operate ATV On Public Road

CONFISCATIONS:

Six deer, 6 buffalo fish, 1 gar, 19 ducks, 2 widgeons.

TOTAL OF EACH CATEGORY FOR REGION 4:

5-Boating

7-Fishing

54-Hunting

3-MGB

97-WMA

3-Other

REGION 5

TOTAL CASES-215

WMA & REFUGES-2

26-Boating

12-Angling W/O A Resident License

5-Angling W/O A Non-Resident License

1-Angling W/O A Saltwater License

2-Fail To Have Fish Intact

1-Take Or Possess Undersize Red Drum

1-Take Or Possess Undersize Black Drum

1-Take Or Possess Overlimit Black Drum

2-Not Abiding By Commission Rules And Regs.

2-No Vessel License

1-No Wholesale/Retail Dealers License

1-Take Shrimp Illegal Methods

2-Not Abiding By Rules And Regs. On WMA

1-Littering

11-Hunting W/O Resident License

1-Hunting W/O Non-Resident License

17-Hunting From A Moving Vehicle

1-Hunting With A Unplugged Gun

13-Hunting Illegal Hours

15-Hunting From A Public Road

REGION 5 CONT'D.

- 1-Hunting MGB W/O A State Stamp
- 8-Hunting Deer Illegal Hours
- 2-Take Illegal Deer Open Season
- 9-Fail To Wear Hunters Orange
- 6-Hunt On DMAP Lands W/O Permit From Owner-Lessee
- 7-Hunt Raccoons Illegally
- 11-Hunt Ducks Or Geese W/O Federal Stamp
- 2-Hunt MGB With Unplugged Gun
- 15-Hunt MGB Illegal Hours
- 4-Possess Untagged MGB
- 12-Using Lead Shot In Steel Shot Area
- 1-Possess Overlimit Of Doves
- 3-Possess Overlimit Of Ducks
- 1-Hunt Snipe Closed Season
- 1-Take Ibis
- 1-Take Or Possess Other Non-Game Birds
- 7-Hunt MGB W/O State Stamp
- 5-Hunt MGB W/O Basic Hunting License

CONFISCATIONS:

100 lbs. Of shrimp, 2 snapper, 11 packages of fish filets, 3 red drum, 1 ice chest, 8 guns, 2 headlights, 2 raccoons, 6 rabbits, 1 deer, 1 snipe, 2 ibis, 25 doves, 3 Dowitchers, 2

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REGION 5

CONFISCATIONS CONT'D.

blue geese, 2 speckle belly, 5 wood ducks, 5 scaup, 1 merganser, 2 pintail, 32 gadwall, 1 mallard, 14 shoveler, 22 teal, 1 mottleduck, 1 ringneck.

TOTAL OF EACH CATEGORY FOR REGION 5:

26-Boating

32-Fishing

154-Hunting

3-Trawling

REGION 6

TOTAL CASES-75

WMA & REFUGES-6

14-Boating

8-Angling W/O A License

1-Take Or Possess Undersize Red Drum

1-Illegal Shipping Of Commercial Fish

5-Hunting Without Resident License

4-Hunt From Moving Vehicle

1-Hunt Wild Quadrupeds Illegal Hours Or With Artificial Light

1-Hunt From Public Road

3-Hunt MGB Without State Stamp

5-Failure To Comply With Hunter Safety Regs.

2-Hunt Without Resident Game License

1-Hunt Deer Closed Area

2-Hunt/Take Deer Illegal Hours Or With Artificial Light

1-Take Spotted Fawn

3-Hunt Raccoons Illegally

4-Not Abiding By Rules And Regs. On WMA

1-Resisting An Officer

1-Littering

1-Possession Of Firearm By A Convicted Felon

3-Hunt Ducks Or Geese Without Federal Stamp

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REGION 6 CONT'D.

3-Possess Untagged MGB

3-Wanton Waste Of MGB

3-Using Lead Shot In Area Designated Steel Shot Only

3-Possess Overlimit Of Ducks

1-Hunt MGB Without State Stamp

CONFISCATIONS:

1 spotted Fawn, 2 deer, 2 red drum, 19 ducks, 5 rifles, 4 shotguns, 12-22 cal. Cartridges,

3-12 gauge slugs, 1 hunting license, 1 flashlight, 1 truck.

TOTAL OF EACH CATEGORY FOR REGION 6:

14-Boating

9-Sport Fishing

1-Commercial Fishing

28-Hunting

16-Federal

6-WMA

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REGION 7

TOTAL CASES-186

WMA & REFUGES-32

8-Boating

22-Angling Without A Resident Fishing License

1-Angling Without A Non-Resident License

9-Angling Without Resident Pole License

1-Angling Without Saltwater License

1-Take Undersize Spotted Sea Trout

2-Take Undersize Black Drum

1-Sell Wholesale/Retail License

19-Hunting Without Resident Basic License

1-Hunt Without Non-Resident License

3-Bow Hunt Without Bow License

13-Hunting From A Moving Vehicle

1-Hunt With Unplugged Gun

1-Illegal Possession Of Wild Quadrupeds

9-Hunt Wild Quadruped Illegal Hours

9-Hunt From A Public Road

1-Possess Buckshot During Closed Deer Season

1-Failure To Comply With Hunter Safety Regulations

13-Hunt Without Resident Big Game License

REGION 7 CONT'D.

1-Hunt Without Non-Resident Big Game License

6-Hunt Deer Illegal Hours

2-Hunt Deer Illegal Methods

4-Take Deer Illegal Hours

4-Possession Of Illegally Taken Deer

18-No Hunters Orange

5-Hunting Without Muzzleloader License

2-Take Bobcat Illegally

3-Use Lead Shot In Steel Shot Zone

17-Not Abiding By Rules And Regs. On WMA

1-Hunt WMA Without License Or Stamp

3-Criminal Trespass

1-Littering

3-Parish Ordinance Closed Areas

CONFISCATIONS:

5 deer, 2 bobcats, 3 ducks, 8 black drum, 7 specs, 5 guns, 1 spotlight.

TOTAL OF EACH CATEGORY FOR REGION 7:

8-Boating	3- MGB
1-Commercial Fishing	7-Other
36-Sport Fishing	25-WMA
105-Hunting	1-Littering

REGION 8

TOTAL CASES-152

WMA & REFUGES -58

17-Boating

1-Allow Another To Use Recreational License

23-Angling Without A Basic License

1-Angling Without A Non-Resident License

1-Angling Without A Saltwater License

2-Take/Possess Over-The-Limit Of Freshwater Gamefish

1-Take/Possess Undersize Red Drum

2-Take/Possess Undersize Speckled Trout

2-Take/Possess Undersize Black Drum

1-Possess Over The Limit Of Speckled Trout

1-Take/Possess Over The Limit Of Black Drum

6-Not Abiding By Commission Rules And Regs.

2-Take Or Sell Commercial Fish W/O Commercial License

5-Take Or Sell Commercial Fish W/O Vessel License

4-Sell Or Buy Fish W/O Wholesale/Retail Dealer's License

3-Fail To Maintain Records

2-Transport W/O Required License

1-Take/Possess Undersize Commercial Fish

1-Buy Commercial Fish From Unlicensed Fisherman

5-Take Oysters From Unapproved Area

REGION 8 CONT'D.

- 1-Unlawfully Take Oysters Off A Private Lease**
- 15-Take Undersize Oysters From Natural Reef**
- 2-Failure To Hold Oyster Tags For Sixty Days**
- 1-Failure To Tag Sacked Or Containerized Oysters**
- 2-Possession Of Untagged Oysters**
- 1-Harvest Oysters Without Oyster Harvesters License**
- 3-Hunting Without Resident License**
- 4-Possess Wild Quadrupeds W/O A License**
- 1-Failure To Abide By Commission Rules And Regs.**
- 1-Hunt W/O Resident Big Game License**
- 2-Hunt Or Take Deer Illegal Hours**
- 2-Hunt Or Take Deer Illegally From A Boat**
- 2-Fail To Wear Hunters Orange**
- 2-Hunt MGB From Moving Motorboat**
- 6-Use Lead Shot In Area Designated As Steel Shot Only**
- 9-Not Abiding By Rules And Regs. On WMA**
- 2-Violation Of Mullet Regs.**
- 3-Take Mullet Commercially W/O Permit**
- 3-Use More than One Strike Net To Commercially Take Mullet**
- 3-Fail To Have Mullet Net Tagged With Department Tag**
- 6-Take Commercial Mullet Illegal Hours**

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REGION 8 CONT'D.

CONFISCATIONS:

118 sacks of oysters, 67 southern flounder, 46 black drum, 3,075 lbs. Of mullet, 2,225 lbs. Of catfish, 3 gallinules, 7 mullet strike nets, 1 bow, 1 arrow quiver, 1 white metal drum, 4 cobia, 1 red drum, 2 deer, 365 eel catfish, 55 speckled trout, 21 ducks, 1 truck, 2 arrows, 1 ice chest, 1400 feet of strike net.

TOTAL OF EACH CATEGORY FOR REGION 8:

17-Boating

36-Sport Fishing

41-Commercial Fishing

26-Oysters

23-Hunting

19-Other

SHRIMP ACTIVITY REPORT REGION 8

Complaints

Shrimp activity for this month has been very low. The white shrimp crop has been disappointing, and there has been low effort. NO complaints received.

Due to hunting seasons and the mullet season, we put little effort into targeted shrimp patrols. On regular saltwater patrols several shrimpers were checked for licenses and gear.

We received fewer inquiries for TED information, which were referred to the LSU Cooperative Extension Services Fisheries Agent Gerald Horst.

We received a few calls regarding mesh size, shrimp size, net and frames size, license requirements, and other legal questions.

REGION 9

TOTAL CASES-227

WMA & REFUGES-45

31-Boating

19-Angling W/O A License

12-Angling W/O A Saltwater License

14-Fail To Have Saltwater Stamp

9-Possess Undersize Red Drum

5-Possess Undersize Spotted Sea Trout

12-Possess Undersize Black Drum

3-Possess Overlimit Black Drum

1-Blocking Passage Of Fish

1-Use Illegal Mesh Butterfly Nets

1-Taking oysters From Unapproved Area

23-Take Undersize Oysters From Natural Reef

1-Fail To Cull Oysters In Proper Location

8-Hunting W/O Resident License

1-Hunting W/O Non-Resident License

4-Hunting From Moving Vehicle

1-Hunting W/Unplugged Gun

4-Hunt Wild Quadrupeds With Illegal Light

4-Hunt From Public Road

5-Hunt MGB W/O State Stamp

REGION 9 CONT'D.

3-Discharge Firearm From Levee Road

1-Possession Of Buckshot During Closed Deer Season

1-Hunt W/O Resident Big Game License

1-Possession Of Gun While Bow Hunting

1-Fail To Wear Hunters Orange

5-Hunting Ducks W/O Federal Stamp

4-Hunting MGB With Unplugged Gun

10-Hunting MGB From Moving Motorboat

1-Possess Untagged MGB

4-Rallying MGB

9-Using Lead Shot In Area Designated As Steel Shot Only

CONFISCATIONS:

33 speckled trout, 7 sacks of oysters, 59 black drum, 10 red drum, 2 mottled ducks, 1 widgeon, 7 spoonbills, 16 gadwalls, 5 gray ducks, 1 ringneck, 1 redhead, 1 ruddy duck, 63 scaup, 17 blue wing teal, 2 green wing teal, 178 coots, 1 rabbit, 1 butterfly net, 2 shotguns, 1 spotlight, 1-10 band scanner.

TOTAL OF EACH CATEGORY FOR REGION 9:

31-Boating

90-Sport Fishing

42-Commercial Fishing

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REGION 9 CONT'D.

TOTAL OF EACH CATEGORY FOR REGION 9 CONT'D.

26-Hunting

38-MGB

SEAFOOD INVESTIGATIVE SECTION:

TOTAL CASES-83

6-Angling W/O Basic Fishing License

1-Possess Undersize Spotted Sea Trout

2-Possess Undersize Black Drum

1-Possess Over Limit Of Spotted Sea Trout

2-Possess Over Limit Of Black Drum

3-Failure To Abide By Commission Rules And Regs.

1-Take Commercial Fish W/O Vessel License

43-Buy And Sell Fish W/O Wholesale/Retail License

6-Failure To Maintain Records

2-Illegal Shipping Of Commercial Fish

2-Buy Fish From Unlicensed Fisherman

1-Fail To Tag Sacked Oysters

4-Possession Of Untagged Oysters

2-Take Mullet Illegal Hours

2-Take Mullet Without Permit

1-Hunt W/O Resident Basic License

1-Hunt W/ Unplugged Gun

2-Failure To Abide By Rules And Regs. On WMA

1-Illegal Possession Of Marijuana

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CONFISCATIONS:

56 spotted sea trout, 44 undersize black drum, 67 flounder sold for \$200.00, 4 cobia, 19 sacks of oysters returned to water, 1 bag marijuana.

TOTAL OF EACH CATEGORY FOR SEAFOOD INVESTIGATIVE SECTION:

10-Sport Fishing

68-Commercial Fishing

2-Hunting

2-WMA

1-Other

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SPECIAL STRIKE FORCE

TOTAL CASES-22

3-Boating

2-Hunt Ducks/Geese W/O Federal Stamp

2-Not Abiding By Rules And Regs. On WMA

2-Take Overlimit Of Raccoons Or Opossums

2-Hunting From Moving Vehicle

2-Hunting From Public Road Or Road Right-Of-Way

2-Hunt Wild Quadrupeds And Or Wild Birds Illegal Hours

1-Hunt W/O Resident License

1-Possess Overlimit Of Ducks

1-Take/Possess Undersize Black Drum

1-Take /Possess Overlimit Of Black Drum

3-Angling W/O A License

CONFISCATIONS:

8 duck, 2 guns, 1 pistol, 1 light, 10 black drum.

TOTAL OF EACH CATEGORY FOR SPECIAL STRIKE FORCE:

3-Boating 2-WMA Rules & Regs.

5-Sport Fishing

9-Hunting

3-MGB

OYSTER STRIKE FORCE

TOTAL CASES-114

31-Take Undersize Oysters From Natural Reefs

1-Failure To Retain Oyster Tags On File For 90 Days

1-Take Oysters From Unleased State Water Bottoms

1-Failure To Display Numbers On Top Of Vessel

1-Take Oysters Without A Commercial License

1-Take Oysters Without Commercial Gear License

1-Take Oysters Without Commercial Vessel License

1-Sanitary Code, Adulterated Oysters

7-Use Oyster License Of Another

2-Take Oysters Without Harvester License

1-Permit Unlicensed Person To Use Gear

3-Take Oysters From Unapproved Area

1-Blocking Free Passage Of Shrimp

1-Take Shrimp With Undersize Mesh Butterfly Net

2-Lacy Act Violation-Transport Seafood Across State Line Without Proper Licenses

2-General Conspiracy-Transport Seafood Across State Line In Violation Of Federal Law

5-Angling Without A Basic License

5-Fishing Without A Saltwater License

5-Fishing Without A Conservation Stamp

1-Possess Undersize Black Drum

OYSTER STRIKE FORCE CONT'D.

1-Possess Undersize Spotted Sea Trout

5-Possess Undersize Red Drum

2-Exceed Field Possession Limit Opening Day

1-Take Ducks Over Bait

3-Using Lead Shot In Area Designated For Steel Only

1-Take Ducks with An Unplugged Gun

1-Wanton Waste Of Ducks

1-Aiding And Abetting To Commit A Federal Violation

2-Hunt Ducks Without A Federal Stamp

2-Hunt Ducks Without State Stamp

1-Possess Overlimit Of Coots

1-Operate Unregistered Motorboat

1-Reckless Operation Of A Watercraft

2-Possession Of Wild Birds Without A License

5-Criminal Trespass

5-Theft Of Decoys and Pirogue

CONFISCATIONS:

600 sacks of oysters, 401 lbs. Of shrimp, 15 dozen crabs, 216 lbs. Of crawfish, 5 red drum, 16 black drum, 3 spotted sea trout, 82 ducks, 26 coots, 1 butterfly net, 1 shotgun, 203 lead shotgun shells, 1 pirogue and decoys.

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TOTAL OF EACH CATEGORY FOR OYSTER STRIKE FORCE:

2-Boating

65-Commercial Fishing

28-Recreational Fishing

14-MGB

12-Misc.

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S.W.E.P.

BOATS CHECKED _____ 75

TOTAL CASES-28

5-Posses Overlimit Of Flounder

12-Failure To Abide By Commission Rules And Regs.

1-Take Commercial Fish No License

1-Allow Another To Use Commercial License

1-Permit Unlicensed Person To Operate Commercial Vessel

1-Permit Unlicensed Person To Operate Commercial Gear

2-Take/Possess Undersize Black Drum

2-Hunt Deer Artificial Light

2-Hunt Deer Illegally From Boat

1-Failure To Hunters Orange

CONFISCATIONS:

1 gun, 1 spotlight, 37 black drum, 67 flounder, 5 cobia, 64 lbs. Of shrimp sold for \$115.00, 8 deer stands.

TOTAL OF EACH CATEGORY FOR S.W.E.P.:

2-Sport Fishing

9-Commercial Fishing

5-Hunting

12-Other

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TOTAL CASES -1718

TOTAL CASES WMA & REFUGES- 392

GRAND TOTAL -2110

WILDLIFE MANAGEMENT AREAS AND REFUGES ACTIVITY REPORT

REGION 1

11-Bodcau

11-Jackson-Bienville

1-Loggy Bayou

TOTAL = 23

REGION 2

10-Union

9-Ouachita

13-Jackson-Bienville

13-Russell Sage

2-Bayou Macon

12-Georgia Pacific

TOTAL = 59

REGION 3

15-Alexander State Forrest

5-Boise Vernon

2-Fort Polk

1-Grassy Lake

2-Pomme De Terre

5-Sabine

3-Spring Bayou **TOTAL = 33**

REGION 4

8-Big Lake

13-Boeuf

8-Buckhorn

8-Dewey Wills

45-Red River

35-Three Rivers

TOTAL = 117

REGION 5

1-West Bay

1-Rockefeller

TOTAL -2

REGION 6

3-Marsh Island

2-Sherburne

1-Thistlethwaite

TOTAL = 6

REGION 7

16-Pearl River

4-Bens Creek

12-Tunica Hills

TOTAL=32

REGION 8

12-Salvador

5-Biloxi

41-Pass a Loutre

TOTAL = 58

REGION 9

31-Point Au Chien

3-Atchafalaya Delta

11-Manchac

TOTAL = 45

SWEP

24-Pass a Loutre

SPECIAL STRIKE FORCE AND SEAFOOD INVEST. SECTION

2-Marsh Island

15-Pass a Loutre

TOTAL = 17

TOTAL CITATIONS ISSUED ON WMA'S AND REFUGES-392

ENFORCEMENT AVIATION REPORT
NOVEMBER, 1996

185-Amph. - 61092	185-Float - 70365	210 - 9467Y
Hrs. - 58.2	Hrs. - 34.1	Hrs. - 5.0

Enforcement Hours - 70.3

Other Divisions - 27.0

Total Plane Use - 97.3 Hrs.

Cases Made in Conjunction with Aircraft Use Resulted in Citations being issued for:

- 2 - Polluted Oysters
- 1 - Cull Oysters In Polluted Area
- 2 - Illegal Mullet Fishing On WMA.
- 2 - Illegal Mullet Fishing
- 1 - Federal Rally MGB
- 6 - Hunt MGB Over Bait
- 6 - Lead Shot
- 20 - Total Cases

Confiscations: 10 Sacks Oysters, 28 Ducks

Ninth

Woodcock

Symposium



Ninth Woodcock Symposium TENTATIVE SCHEDULE

Tuesday, 28 January

8:00 AM - 10:00 AM PRESENTATIONS

10:00 AM - 10:15 AM BREAK

10:15 AM - 11:45 AM PRESENTATIONS

11:45 AM - 1:00 PM LUNCH

(on your own)

1:00 PM - 7:30 PM FIELD TRIP
(SHERBURNE WMA / ATCHAFALAYA NWR)

Sponsored by:

Sunday, 26 January

The Ruffed Grouse Society
5:00 PM - 7:00 PM REGISTRATION

Cajun Becasse Chapter (RGS)
6:30 PM - 8:00 PM MIXER

Monday, 27 January

7:00 AM - 8:00 AM REGISTRATION

**U.S. Forest Service
(Kisatchie National Forest)**
8:00 AM - 8:30 AM INTRODUCTIONS
AND WELCOME

The Wildlife Society
8:30 AM - 10:30 AM PRESENTATIONS

10:30 AM - 10:45 AM BREAK

LA. Chapter TWS
10:45 AM - 12:00 PM PRESENTATIONS

**Louisiana Department of
Wildlife and Fisheries**
12:00 PM - 1:30 PM LUNCH
(on your own)

Richmond Suites

Best Western

1:30 PM - 3:00 PM PRESENTATIONS

3:00 PM - 3:15 PM BREAK

3:15 PM - 5:00 PM PRESENTATIONS

7:00 PM - 8:30 PM DINNER

Baton Rouge, Louisiana

26 January - 28 January 1997

Ninth Woodcock Symposium

This woodcock symposium will be the first to be held in the Deep South. It provides the opportunity for researchers to present peer-reviewed papers on studies conducted since the last symposium (1990). Proceedings will be published and forwarded to participants.

General Information

The registration is \$65.00 when postmarked by December 1, 1996 and \$75.00 after that date. The fee includes: 26 Jan. Mixer, 27 Jan. Dinner, 28 Jan. Field Trip, and coffee breaks. The symposium will include 1½ days of presentations and an afternoon/evening field trip.

The field trip will be to the Sherburne Wildlife Management Area / Atchafalaya National Wildlife Refuge complex. A considerable amount of woodcock banding and telemetry work has been conducted since the early 1990s on these areas. Classic bottomland hardwood habitat,

examples of hardwood management, old field management, woodcock crepuscular flights and large numbers of waterfowl should be seen. Field clothing is suggested for this trip.

Lodging and Meals

A block of 70 rooms has been reserved at the Richmond Suites (Best Western). Fifty (50) rooms have a special conference rate of \$75.00 for single occupancy. There is an additional charge of \$10 per person per room. Twenty (20) rooms have a special conference rate of \$85.00 (+ \$10 per additional person). These rates include a complete buffet breakfast and early evening hors d'oeuvres and beverages.

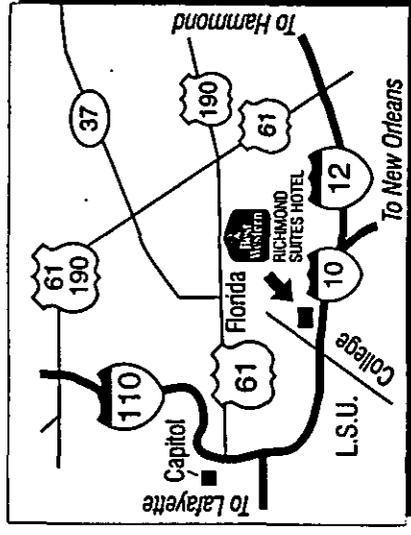
Reservations at the Richmond Suites must be made 2 weeks in advance of the meeting guarantee these rates. The Superbowl will be held in New Orleans the Sunday immediately prior to the symposium and overflow to the Baton Rouge area is expected. As a consequence, early room reservation is encouraged. For immediate reservations, call toll-free:

Richmond Suites 1-800-528-1234. Be sure to indicate that you are with the Woodcock Symposium.

Baton Rouge has a reputation for offering some of the best dining experiences in the country. While in Baton Rouge, you may enjoy food flavors ranging from Cajun to Italian to Mexican to Thai. A wide variety of restaurants are within walking distance.

Transportation

Baton Rouge is serviced by American, Continental, Delta, Northwest and USAir. The Richmond Suites offer free shuttle service from the airport to the hotel. The local number is 924-6500.



Registration Form - 9th Woodcock Symposium

Name _____
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Registration: prior to 1 December \$65.00
after 1 December \$75.00

Enclosed is the registration fee of \$_____ in U.S. Dollars.
Please make checks payable to LA Chapter TWS.

Please indicate whether you will participate in the Field Trip. Yes _____ No _____

Accommodation Information
Richmond Suites 1-800-528-1234 Reserve by: 12 January

Please mail this registration to: Louisiana
Department of Wildlife and Fisheries, Attn: Mike
Olinde, P.O. Box 98000, Baton Rouge, LA 70898
USA

**NINTH WOODCOCK SYMPOSIUM
TENTATIVE SPEAKER SCHEDULE**

Monday, January 27

- 8:30 am Historic summary of previous woodcock workshops - Richard A. Coon. U.S. Fish & Wildlife Service, 1875 Century Blvd., Atlanta, GA 30345
- 8:50 am Gonadal condition of male and female woodcock harvested in Louisiana during the 1986-88 hunting seasons - Mike W. Olinde. Louisiana Dept. of Wildlife and Fisheries, P.O. Box 98000, Baton Rouge, LA 70898-9000
- 9:10 am Direct band recoveries from in-season banding in south central Louisiana - Mike W. Olinde, et al. Louisiana Dept. of Wildlife and Fisheries, P.O. Box 98000, Baton Rouge, LA 70898-9000
- 9:30 am Winter survival and mortality sources for female woodcock on a Louisiana WMA - Richard M. Pace, III. LA Coop. Fish and Wildlife Research Unit, FOR-WILDL-FISH Bldg., Louisiana State University, Baton Rouge, LA 70803-6202
- 9:50 am An evaluation of hunter harvest of American woodcock on 25-square kilometer area in Michigan - Scot T. Nauertz, Brett D. Nelson, and William L. Robinson. STN, BDN, WLR-Dept. of Biology, Northern Michigan University, 1401 Presque Isle Ave., Marquette, MI 49855-5341
- 10:10 am Sources of variation in survival and recovery rates of American woodcock - David G. Krementz and John G. Bruggink. DGK-Biological Resources Div.-USGS, Patuxent Wildlife Research Center-SERG, Warnell School of Forest Resources, The Univ. of Georgia, Athens, GA 30602-2152; JGB-U.S. Fish & Wildlife Service, Office of Migratory Bird Management, Patuxent Wildlife Research Center, 11500 American Holly Dr., Laurel, MD 20708-4016
- 10:30 am Break
- 10:45 am Can American woodcock population declines be reversed? - Daniel R. Dessecker and Samuel R. Pursglove. DRD-Forest Wildlife Biologist, Ruffed Grouse Society, P.O. Box 2, Rice Lake, WI 54868; SRP-Executive Director, Ruffed Grouse Society, 451 McCormick Rd., Coraopolis, PA 15108
- 11:05 am Activities and preliminary results of woodcock research in Europe - Dr. H. Kalchreuter. International Waterfowl and Wetlands Research Bureau (IWRB), Woodcock & Snipe Research Group, D-79848 Bonndorf-Glashutte, GERMANY
- 11:25 am Organization of woodcock research in France - Francois Gossman. Office National de la Chasse, Direction de la Recherche et du Developpement, CNERA-Avifaune Migratrice, 53, rue Russeil, F-44000 Nantes, FRANCE
- 11:45 am Lunch

- 1:30 pm Demographic trend in roding Eurasian woodcock in France from 1991 to 1996 - Dr. Yves Ferrand. Office National de la Chasse, Direction de la Recherche et du Developpement, 5 rue de Saint Thibaut, Saint Benoist, 78610 Auffargis, FRANCE
- 1:50 pm Analysis of 10 years of recoveries in France: mortality of the species, survival rate, delay of recovery - Francois Gossmann. Office National de la Chasse, Direction de la Recherche et du Developpement, CNERA-Avifaune Migratrice, 53, rue Russeil, F-44000 Nantes, FRANCE
- 2:10 pm Method of ringing Eurasion woodcock - Francois Gossmann. Office National de la Chasse, Direction de la Recherche et du Developpement, CNERA-Avifaune Migratrice, 53, rue Russeil, F-44000 Nantes, FRANCE
- 2:30 pm Food habits and preferences of American woodcock wintering in east Texas - James F. Gregory and R. Montague Whiting, Jr. JFG & RMWJr-Stephen F. Austin State University, Nacogdoches, TX 75962
- 2:50 pm Body mass variations of woodcock in south central Louisiana - Richard M. Pace, III, Michael W. Olinde, and Fred G. Kimmel. RMP-LA Coop. Fish and Wildlife Research Unit, FOR-WILDL-FISH Bldg., Louisiana State University, Baton Rouge, LA 70803-6202; MWO & FGK-Louisiana Dept. of Wildlife and Fisheries, P.O. Box 98000, Baton Rouge, LA 70898-9000
- 3:10 pm Break
- 3:30 pm Evaluation of an aspen clearcut as habitat for American woodcock in Michigan - William L. Robinson, John G. Bruggink, M. F. Goldsmith, J. R. Von Wahlde, M. J. Sparrow, A. K. Steketee, S. T. Nauertz, and B. D. Nelson. WLR, MFG, JRVonW, MJS, STN, BDN-Dept. of Biology, Northern Michigan University, 1401 Presque Isle Ave., Marquette, MI 49855-5341; JGB-U.S. Fish & Wildlife Service, Office of Migratory Bird Management, Patuxent Wildlife Research Center, 11500 American Holly Dr., Laurel, MD 20708-4016; AKS-West Virginia Coop. Fish and Wildlife Research Unit, 333 Percival Hall, West Virginia University, Morgantown, WV 26505-6125
- 3:50 pm Earthworm abundance in mature and regeneration aspen stands in northern Michigan - Brett D. Nelson and William L. Robinson. BDN & WLR-Dept. of Biology, Northern Michigan University, 1401 Presque Isle Ave., Marquette, MI 49855-5341

- 4:10 pm American woodcock use of reclaimed surface mines in West Virginia - Ian D. Gregg, David E. Samuel, and Petra B. Wood. IDG & DES-West Virginia University, Division of Forestry, Morgantown, WV 26506; PBW-West Virginia Coop. Fish and Wildlife Research Unit, 333 Percival Hall, West Virginia University, Morgantown, WV 26505-6125
- 4:30 pm Field use at night by wintering American woodcock - James B. Berdeen and David G. Krementz. JBB-Warnell School of Forest Resources, The University of Georgia, Athens, GA 30602-2152; DGK-Biological Resources Div.-USGS, Patuxent Wildlife Research Center-SERG, Warnell School of Forest Resources, The Univ. of Georgia, Athens, GA 30602-2152

7:00-8:30 pm Dinner

Tuesday, January 28

- 8:00 am Piney woods habitat management - David G. Krementz. Biological Resources Div.-USGS, Patuxent Wildlife Research Center-SERG, Warnell School of Forest Resources, The Univ. of Georgia, Athens, GA 30602-2152
- 8:20 am Bottomland hardwood restoration and woodcock - Mike W. Olinde, et al. Louisiana Dept. of Wildlife and Fisheries, P.O. Box 98000, Baton Rouge, LA 70898-9000
- 8:40 am Land-use changes along woodcock singing-ground survey routes in West Virginia - Ann K. Steketee, Petra B. Wood, and John G. Bruggink. AKS & PBW-West Virginia Coop. Fish and Wildlife Research Unit, 333 Percival Hall, West Virginia University, Morgantown, WV 26505-6125; JGB-U.S. Fish & Wildlife Service, Office of Migratory Bird Management, Patuxent Wildlife Research Center, 11500 American Holly Dr., Laurel, MD 20708-4016
- 9:00 am Development of a landscape level habitat model for American woodcock in West Virginia - Ann K. Steketee, Petra B. Wood, and David E. Samuel. AKS & PBW-West Virginia Coop. Fish and Wildlife Research Unit, 333 Percival Hall, West Virginia University, Morgantown, WV 26505-6125; DES-Division of Forestry, West Virginia University, Morgantown, WV 26505
- 9:20 am Determining multi-scale habitat and landscape associations for American woodcock in Pennsylvania - David S. Klute, Matthew J. Lovallo, Gerald L. Storm, and Walter M. Tzilkowski. DSK, MJL, WMT-School of Forest Resources, The Pennsylvania State University, University Park, PA 16802; GLS-Pennsylvania Cooperative Fish and Wildlife Research Unit, University Park, PA 16802

9:40 am Habitat selection in spring by male American woodcock in Maine using a geographic information system - Kimber E. Sprankle, Greg F. Sepik, Daniel G. McAuley, and Jerry R. Longcore. KES-U.S. Fish & Wildlife Service, 336 Nimble Hill Rd., Newington, NH 03801; GFS-U.S. Fish & Wildlife Service, RR #1, Box 202, Woodland, ME 04694; DGMcA & JRL-USGS, Biological Resources Division, Patuxent Wildlife Research Center, 5768 South Annex A, Orono, ME 04469-5768

10:00 am Educating the public about woodcock management: Pennsylvania's woodcock trail and demonstration area - William E. Sharpe, Bryan R. Swistock, and Margaret C. Brittingham. WES, BRS, MCB-Environmental Resources Research Institute, The Pennsylvania State University, Land and Water Research Bldg., University Park, PA 16802-4900

Woodcock

Population Status

- ◆ Woodcock breeding population indices have declined 51 and 36% in the Eastern and Central regions, respectively, since the Singing-ground Survey was initiated in 1968 (Fig. 1).
- ◆ Recruitment has been below average since 1992 in the Eastern Region, and since 1986 in the Central Region (Fig. 2). The rates of decline in the populations have exceeded the rates of decline in recruitment, suggesting that increasing mortality may be involved in the declines.
- ◆ Landscape-level degradation and loss of suitable habitat (early successional forests) on both the breeding and wintering grounds are thought to be the major causes of the declines. Evidence from other species is equivocal. There have been similar, and in some cases greater population declines in some species of nongame migratory birds that require early successional forests (e.g., field sparrow, golden-winged warbler, rufous-sided towhee). However, populations of some early successional species have increased and others have been stable.

Hunting Regulations and Harvest

- ◆ *Eastern Region.*—The most recent changes in frameworks occurred in the mid 1980s, when the opening date was changed from 1 September to 1 October, the closing date was changed from 28 February to 31 January, season length was shortened from 65 to 45 days, and the daily bag was reduced from 5 to 3.
- ◆ *Central Region.*—The closing framework date was changed from 28 February to 31 January in 1991. No other major regulatory changes have occurred since the season length was increased from 50 to 65 days in 1967. The current opening date is 1 September, the season length is 65 days and the daily bag limit is 5.
- ◆ Harvest rates and band reporting rates for woodcock are unknown. Assuming the reporting rate is 32%, woodcock harvest rate estimates for 1985-94 were 3 and 8% for the Eastern and Central regions, respectively. The small number woodcock banded in any given year and low recovery rate require lumping data across years (the estimates are based on 18 recoveries of 1,937 banded woodcock in the Eastern Region, and 33 recoveries of 1,356 banded birds in the Central Region). Thus, these estimates should be viewed cautiously. Local harvest rates averaged 8% during a bag-check study on a relatively heavily hunted area in northern Michigan. A similar study in Louisiana indicated harvest rates of <1 to 10%.
- ◆ The number of woodcock hunters and total woodcock harvest have declined substantially (Fig. 3) since peaking in the 1970s (Eastern Region) and early 1980s (Central Region) but negative population trends have continued. The role of hunting mortality in the dynamics of local and regional woodcock populations is unknown, however harvest is the only mortality factor we control directly. Even if hunting mortality is unrelated to the long-term declines of woodcock populations, the U. S. Fish and Wildlife Service believes that hunting regulations should be commensurate with the current population status and rates of decline.

Range-wide Management and Research

- ◆ The objective for woodcock management by the U. S. Fish and Wildlife Service is to increase populations to levels consistent with the demands of consumptive and non-consumptive users (American Woodcock Management Plan 1990). Specifically, the plan indicated that "population declines should be stabilized and

population levels increased above current [1990] levels." We are not making progress toward this objective. The plan described the scope of requirements for the management of woodcock in the United States and was designed to be implemented at the regional and state level. Implementation of the plan is behind schedule.

◆ Sufficient resources have not been available at the state and federal levels to accomplish the major recommendations made in 1977 (*Management of Migratory Shore and Upland Game Birds in North America*). Indeed many of the same needs (e.g., large-scale habitat monitoring, adequate banding programs to estimate survival and harvest rates, habitat management in wintering areas, monitoring the effects of environmental contaminants, etc.) were again identified in 1994 (*Migratory Shore and Upland Game Bird Management in North America*).

◆ The U. S. Fish and Wildlife Service has repeatedly voiced concern over the long-term declines in woodcock populations and indicated that reductions of harvest opportunities may be appropriate in light of continuing declines in populations (*Federal Registers*: August 17, 1994, March 24, 1995, and March 22, 1996).



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is most common prior to nesting; however, visitation is sporadic and a given female may visit singing grounds during only 14% of available crepuscular periods (McAuley et al. 1993). During most crepuscular periods, the hen remains in diurnal cover or moves to another forested cover.

Nesting

Females have high nest site fidelity. Dwyer et al. (1982) recaptured 6 hens with broods near (\bar{x} = 303.5 m) previous (≥ 1 year) capture sites, and 5 brood-hens (initially banded as chicks) were recaptured 5 to 1,380 m from their initial capture sites. Woodcock construct a simple nest consisting of a shallow depression lined with leaves, usually in early growth hardwoods (Mendall and Aldous 1943, Maxfield 1961, Sheldon 1971, Kinsley et al. 1982, Gregg 1984) (Fig. 1). Mean clutch size is about 4 eggs (3.9, Mendall and Aldous 1943; 3.8, McAuley et al. 1990). Nest success is high; estimates range from 43 to 67% (Mendall and Aldous 1943, Gregg 1984, McAuley et al. 1990) and woodcock readily renest after losing a clutch or brood. Thus, woodcock have a fairly high reproductive potential despite their small clutch size.

In contrast to the strong nest site fidelity associated with successful nesting attempts, re-nesting attempts are several kilometers (\bar{x} = 6.7 km) distant from the destroyed nest. Also, average clutch size of the second nest (\bar{x} = 3.0) is smaller than the first (McAuley et al. 1990). The incidence of nest loss is variable from year to year, but tends to be highest when weather is cold and wet during incubation (Gregg 1984). There is no evidence of hens laying a second clutch after a brood has been raised successfully (McAuley et al. 1990).

Incubation lasts 21 days and is performed solely by the female (Mendall and Aldous 1943). Peak hatch ranges from approximately 1 March in Alabama (Causey 1981) to mid-May in northern breeding areas (Sheldon 1971, Dwyer et al. 1982, Gregg 1984). Females continue to visit singing grounds during incubation, but at reduced rates (McAuley et al. 1993). Dwyer et al. (1988) and McAuley et al. (1993) speculate this continued contact encourages the male to continue courtship displays, ensuring the female can be inseminated if the first clutch is lost.

Woodcock young are precocial, but require maternal feeding the first 7 days (Gregg 1984)



Fig. 1. The nest of an American woodcock (Photo by U.S. Fish and Wildlife Service).

and periodic brooding the first 15–20 days (Vander Haegen 1992). Within a few hours of hatching, young are led 100–200 m from the nest (Ammann 1982). Woodcock chicks feed almost exclusively on invertebrates and grow rapidly. Young are capable of short flights after 18 days, while sustained flight and brood dispersal occurs after 4–5 weeks. By 5 weeks, young are almost fully grown and difficult to distinguish from adults. Survival of young from hatching to fledging is variable and dependent primarily upon weather (D. G. McAuley, unpubl. data).

Survival of adults during courtship and nesting also varies with weather (J. R. Longcore, unpubl. data). Persistent snow in spring can prevent feeding and lead to high mortality (Dwyer et al. 1988). Similarly, a lack of snow cover and cold temperatures during winter can result in deep frost depths that reduce availability of earthworms (Vander Haegen et al. 1993) and lead to decreased survival of woodcock (J. R. Longcore, unpubl. data).

Summer

Adults undergo a complete feather molt during summer, finally replacing primaries VIII–X in September or early October. Juveniles undergo a partial molt during July–October. Owen

and Krohn (1973) provide a detailed report of woodcock molt patterns and associated changes in body weights.

Most woodcock move to a nocturnal roost at dusk and return to their diurnal covert at dawn. The nocturnal roost is most often a field or a forest opening, but sometimes is a forested area similar to the diurnal covert. Use of fields versus forested areas as roost sites varies by age and gender, with males of all ages and juvenile females being most likely to use fields. Percentage of individuals using fields varies by age and gender but peaks in July (range 61–87%) and declines through late summer and early fall (range 28–53%) (Sepik and Derleth 1993b).

Average monthly diurnal home range in Maine was <20 ha with few differences between age and gender classes. Sizes of diurnal home ranges and movement patterns were smaller for woodcock using sapling stage stands (\bar{x} = 14.6 ha) than for woodcock using older stands (\bar{x} = 29.6 ha) (Sepik and Derleth 1993b). Average monthly nocturnal home ranges of woodcock were variable (range 17–34 ha). Average monthly movement between nocturnal and diurnal sites was also variable (range 137–1,020 m).

Summer (15 Jun–20 Oct) survival rates of adult woodcock (\bar{x} = 0.914) are significantly higher than juvenile survival rates (\bar{x} = 0.675) (Derleth and Sepik 1990). The primary source of mortality during summer is predation (Derleth and Sepik 1990), but starvation also can be important. Sepik et al. (1983) and Dwyer et al. (1988) observed decreased survival rates of juveniles during a drought.

Fall Migration and Winter

Departure from breeding areas begins in October with southward movements continuing into late December. Woodcock in Maine achieved maximum weight by 20 October and were believed physiologically prepared to migrate at that time (Owen and Krohn 1973). However, peak departure from Moosehorn National Wildlife Refuge in eastern Maine occurs during the first week of November (Sepik and Derleth 1993a). Migration in Pennsylvania occurs between 18 November and 8 December (Coon et al. 1976). Migration chronology is affected by wintering latitude and weather, especially strong cold fronts. Evidence of differential migration chronology by age and gender has been supported (Williams 1969, Gregg 1984) and not supported (Sepik and Derleth 1993a).

Weather factors such as temperature and moisture influence food availability and, thus, selection of wintering areas by woodcock. Root (1988) believed the northern wintering distribution of woodcock was related to the January 0 C isotherm. The abundance and distribution of woodcock in Louisiana also varies with winter severity (Williams 1969). Furthermore, during wet winters, woodcock winter more extensively in Texas than during normal or dry winters (R. M. Whiting, pers. commun.). Period survival rates (15 Dec–15 Feb) of woodcock are about 0.8 (Krementz et al. 1994). Most mortality during winter is attributed to predation, although prolonged cold temperatures may result in localized mortality due to starvation (Sheldon 1971).

Woodcock are susceptible to contaminants under certain circumstances. There was a complete closure of woodcock hunting in New Brunswick in 1970 and a partial closure in 1971 in response to concerns over DDT concentrations that resulted from spruce budworm control efforts (Pearce 1971). Woodcock may be exposed to pesticides being used to control either forest or agricultural pests, but the hazard from agricultural pesticides is highest in wintering areas when woodcock are feeding in agricultural fields. Earthworms are fairly resistant to many chemicals and, therefore, may carry toxicants (Davey 1963). Also, since woodcock are first-order predators, there is opportunity for biological magnification of persistent chemicals. Woodcock continue to use nocturnal roost sites during winter. Roosting behavior is variable with birds sometimes roosting in fields or remaining in their diurnal covert. In contrast to summer roosting behavior (Krohn 1970), feeding occurs in nocturnal roosting fields, possibly because of increased energy requirements that cannot be met during diurnal and crepuscular feeding periods (Glasgow 1958, Sheldon 1971, Stribling and Doerr 1985). Courtship flights may occur at any time on the wintering grounds, but are most common during warm spells shortly before spring migration.

Dwyer and Nichols (1982) estimated annual survival rates from band recoveries (Table 1). Survival rate estimates of adults were higher than for juveniles and estimates of female survival rates were greater than males. Overall survival rates for the Central population were greater than overall survival rates for the Eastern population.

HABITAT

Breeding

Singing Grounds.—Male woodcock use a variety of openings as courtship sites including clearcuts, natural openings, roads, pastures, cultivated fields, lawns, and reverting agricultural fields (Mendall and Aldous 1943, Liscinsky 1972). Openings <10 m across may be used by a single male, while larger areas may contain several courting birds (Liscinsky 1972, Rabe and Prince 1982).

The vegetative structure of singing grounds is variable both locally and throughout the breeding range. Openings with surrounding tall vegetation may inhibit use (Gutzwiller and Wakeley 1982), while openings with scattered shrubs were preferred in Pennsylvania (Gutzwiller and Wakeley 1982) and Michigan (Rabe and Prince 1982). Kinsley et al. (1982) found that use of an opening was influenced by amount of litter cover, density of small and large woody shrubs, distance to water, and age of the stand. Sheldon (1971) and Gutzwiller et al. (1983) found vegetative structure of an opening more important than species composition in affecting use by woodcock.

Dwyer et al. (1988) suggested that quality of nesting and brood rearing habitat surrounding an opening determined whether the site was used as a singing ground. Other researchers have also noted that most singing grounds were <100 m from diurnal cover (Mendall and Aldous 1943, Maxfield 1961, Sheldon 1971, Kinsley et al. 1982).

Nesting and Brood Rearing.—Woodcock nest in a variety of habitat types, but most nests are in young, second-growth hardwood stands (Mendall and Aldous 1943, Sheldon 1971, Bourgeois 1977). Nests are often at the base of a tree or shrub (Coon et al. 1982, Gregg 1984), near feeding areas (Mendall and Aldous 1943, Gregg 1984), and <150 m from a singing ground (Mendall and Aldous 1943, Blankenship 1957, Sheldon 1971, Gregg 1984).

Vegetative structure at nest sites is highly variable. In Pennsylvania, density of woody shrubs was about 49,000 stems/ha (Coon et al. 1982, Kinsley and Storm 1989) compared to 20,630 stems/ha in Alabama (Roboski and Causey 1981), and 14,600 stems/ha in New York (Parris 1986). This variability may reflect limited availability of nest sites influenced by weather conditions at time of nest site selection (Sepik et al. 1989). Coon et al. (1982) found low

Table 1. Mean annual survival rates of pre-season-banded American woodcock, 1967–75 (after Dwyer and Nichols 1982).

Age/sex	Eastern population		Central population	
	Survival rate	SE	Survival rate	SE
Adult male	0.354	0.052	0.400	0.150
Adult female	0.491	0.073	0.525	0.096
Juvenile male	0.202	0.048	0.356	0.124
Juvenile female	0.358	0.077	0.313	0.094

selectivity in choice of nest sites on the basis of habitat characteristics.

Ideal brood habitat is characterized by dense, hardwood cover on good soils that support an abundance of earthworms. A dense canopy serves to protect broods from avian predators and shades out herbaceous plants allowing broods ready access to earthworms. Brood use of a site is correlated with earthworm abundance (Rabe and Prince 1982, Parris 1986).

Diurnal Habitat.—There is wide variation in plant species composition at diurnal habitat sites, but several plant species-groups are important indicators of potential woodcock habitat because they are early-successional or have growth forms that provide proper habitat structure. Stands of hawthorn (*Crataegus* spp.), alder (*Alnus* spp.), aspen (*Populus* spp.), and dogwood (*Cornus* spp.) are frequently indicators of good woodcock habitat.

A critical determinant of woodcock use of a site is abundance of earthworms. Earthworm biomass at sites used by woodcock in Maine (Nicholson et al. 1977, Sepik and Derleth 1993b) and New York (Parris 1986) averaged about 8 g/m² (dry weight). When biomass was below this level, woodcock use declined (Parris 1986). Vegetative composition of a site can influence earthworm abundance (Reynolds et al. 1977, Parris 1986), but soil characteristics, hydrology, and land-use history are of equal or greater importance. In glaciated areas of the breeding range, previously-farmed land with moderately-drained, fine-textured soils hold more earthworms (Owen and Galbraith 1989).

Dense stands of young hardwoods characterize optimal diurnal habitat structure on breeding areas (Morgenweck 1977, Rabe 1977, Hudgins et al. 1985, Parris 1986, Phelps 1986). Woodcock are sometimes found in stands of mature forest, but only if there is a dense understory (Sheldon 1971, Rabe 1977). Straw et al.

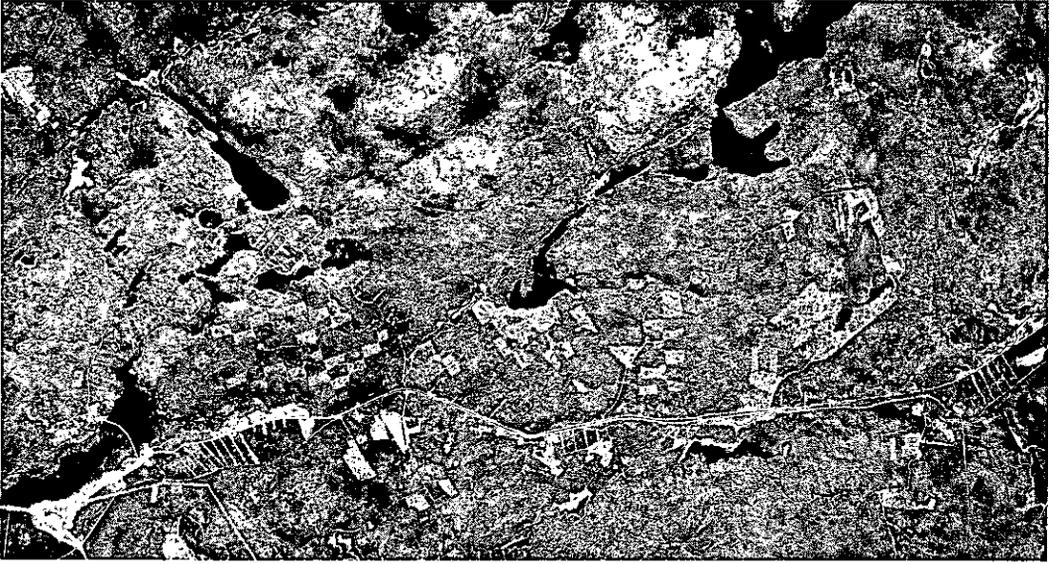


Fig. 2. A mosaic of clearcuts at Moosehorn National Wildlife Refuge, Maine, used to create habitat for American woodcock (Photo by U.S. Fish and Wildlife Service).

(1986) found that optimal diurnal habitat in Pennsylvania occurred in stands with 4,900 saplings/ha, maximum canopy cover of large shrubs ($\geq 32\%$), and an open overstory ($14.3 \text{ m}^2/\text{ha}$ basal area). Sites with $< 2\%$ exposed mineral soil, $< 12\%$ cover of small or large shrubs, $< 1,500$ saplings/ha and $\geq 20 \text{ m}^2/\text{ha}$ basal area were avoided by woodcock. Woodcock use of coniferous stands is minimal in northern breeding areas, except during periods of drought (Sepik et al. 1983).

Nocturnal Habitat.—Many woodcock leave diurnal areas at dusk and fly to openings such as clearcuts, abandoned agricultural fields, pastures, and soybean fields throughout most of the year (Dunford and Owen 1973, Owen and Morgan 1975, Connors and Doerr 1982, Sepik et al. 1986). Woodcock in breeding areas are not selective with regard to these nocturnal roost sites, except they avoid openings with vegetation that is either sparse or dense. Some birds (predominantly females) do not use openings, but instead remain in diurnal covers or move to an alternate forest cover at night (Glasgow 1958, Horton and Causey 1979, Sepik and Derleth 1993b).

Creation and Maintenance of Habitat.—Quality woodcock habitat can be created on most sites with suitable soils (Fig. 2). When viewed in a successional context, a clearcut may serve as a nocturnal roost site and singing ground,

then nesting, brood-rearing, and diurnal habitat, and ultimately become unsuitable for woodcock as succession proceeds. Optimizing timber operations for woodcock involves entering a forest every 5–10 years to cut small areas adjacent to previous cuts to juxtapose habitat elements critical for woodcock. Shelterwood cuts, clearcuts, heavy thinnings, and group-selection cuts can all be used to create good woodcock habitat in breeding areas. Unmerchantable sites can be treated with forestry site-preparation equipment, herbicides, or burned to set back succession. Sepik et al. (1981) detailed habitat requirements and management options for creating woodcock habitat as did Roberts (1989).

Wintering

Diurnal Habitat.—Typical diurnal woodcock habitat in the lower Mississippi River bottomland hardwoods was described by Glasgow (1958) as consisting of woodlands with scattered thickets of cane (*Arundinaria gigantea*) and blackberry (*Rubus* spp.). Britt (1971) and Dyer and Hamilton (1977) compared habitat conditions at woodcock flushing sites (Fig. 3) to random plots in the same region that Glasgow (1958) worked. Britt (1971) found that blackberry/dewberry, greenbriars (*Smilax* spp.), supplejack (*Berchemia scandens*), and water oak (*Quercus nigra*) were more common understory plants at

flushing sites. Switch-cane, when present on an area, was also associated with flush sites. Britt (1971) stressed the importance of dense stands of other mid-story and shrub species such as devil's-walking-stick (*Aralia spinosa*), swamp dogwood (*Cornus drummondii*), hawthorn, and tree saplings with high vertical-stem densities. He determined that canopy closure (structure) was more important than overstory species composition. Dyer and Hamilton (1977) found similar understory plant species associated with flushing sites.

Although bottomland hardwood sites are traditionally considered the best woodcock habitat, pinelands and their associated drainages in the southeast are extensive and also offer woodcock wintering habitat (Reid and Goodrum 1953; Glasgow 1953, 1958; Pursglove 1975; Kroll and Whiting 1977; Pace and Wood 1979; Johnson and Causey 1982). Understory species composition on pineland sites is different from that of bottomland sites. Glasgow (1953) listed yellow jasmine (*Gelsemium sempervirens*), Japanese honeysuckle (*Lonicera japonica*), grape (*Vitis* spp.), poison ivy (*Toxicodendron radicans*), blackberry, yaupon (*Ilex vomitoria*), French mulberry (*Callicarpa americana*), waxmyrtle (*Myrica cerifera*), rose (*Rosa* spp.), blueberry (*Vaccinium* spp.), and southern crabapple (*Malus angustifolia*) as common understory plants within pineland woodcock habitat. Understory structure is of greater importance than plant species composition, except that species composition influences structure and earthworm populations.

Selection of diurnal habitat (pineland or bottomland) by woodcock is variable with regard to site and weather. Pineland sites provide suitable habitat for woodcock only when adequate moisture is present (Boggus and Whiting 1982). When moisture levels are reduced, woodcock tend to concentrate in mixed pine-hardwoods, and hardwood drainages and seeps. Within these areas, many bottomland understory species associated with woodcock flushing sites such as switch-cane, blackberry/dewberry, greenbriars, and supplejack are more prevalent. Pursglove (1975), and Pace and Wood (1979) also noted that highest woodcock concentrations were associated with mixed pine-hardwood stands and adjacent stream bottoms rather than predominantly pine areas. Excessive moisture can be a limiting factor when bottomland sites are flooded.



Fig. 3. Two English setters point an American woodcock (Photo by T. J. Dwyer).

A factor that sometimes limits use of pineland sites by woodcock is excessive ground cover. In such situations, prescribed burning may increase use, but only when adequate vegetative structure and earthworms are already present. Johnson and Causey (1982) reported that a fall or early winter burn removes sufficient ground cover to facilitate foraging, while retaining adequate structural cover for protection.

Nocturnal Habitat.—Nocturnal roosting fields are a critical habitat element in wintering areas because these sites are used for feeding (Glasgow 1958, Horton and Causey 1979, Connors and Doerr 1982). D. G. Kremetz (unpubl. data) found that woodcock travel short distances (≤ 2 km) from diurnal areas to nocturnal roosting fields, indicating the importance of juxtaposition of suitable roosting cover and diurnal cover for optimum use of both.

A variety of sites is used for nocturnal roosting. Glasgow (1958) indicated that most sites offered a herbaceous or brushy canopy at least 0.5–1 m high, interspersed with sparse ground cover on soils with sufficient moisture to maintain earthworms near the surface. In pineland areas, woodcock often used former homesites for nocturnal feeding, showing particular preference for those that had been grazed. Overhead

cover on these sites was provided by plants such as bitterweed (*Helenium tenuifolium*), goatweed (*Croton capitatus*), coneflower (*Rudbeckia* spp.), St. Andrew's cross (*Hypericum* spp.), winged sumac (*Rhus copallina*), huckleberry, and blackberry. Bluestems (*Andropogon* spp.), panic grasses (*Panicum* spp.), bullgrasses (*Paspalum* spp.), carpet grass (*Axonopus affinis*) and sedges (*Carex* spp.) dominated the understory vegetation.

Agricultural fields are also used as nocturnal roosting sites. Crop fields used include corn, cotton, sugar cane, and soybeans (Glasgow 1958, Connors and Doerr 1982, Stribling and Doerr 1985). Fields that received the highest use were not fall-plowed and had persistent stalks that provided cover. Stribling and Doerr (1985) found that woodcock used fall-plowed soybean fields but not fall-plowed corn fields, even though earthworms were equally abundant in the latter. They also found that earthworms collected in soybean fields had higher protein content than those collected in corn fields and hypothesized this factor might account for greater use of soybean fields. Recent banding efforts in Louisiana suggest a preference for soybean fields that were row-planted rather than flat-planted (no-till) (M. Olinde, pers. commun.). Areas planted in rows may provide cover in the form of topographic relief. Further, Stribling and Doerr (1985) speculated that fields planted in rows with accumulated crop residues in the troughs prevented the soil from freezing and provided important shelter from wind during cold weather.

Pastures within alluvial floodplains are also frequently used as nocturnal feeding sites by woodcock (Glasgow 1958). Recently abandoned and active pastures contained a variety of grasses and broadleaf weeds, while older pastures contained blackberry, rose, and small early successional trees. Burning improved the quality of fields dominated by dense vegetative cover by removing ground cover while preserving a light canopy of woody stems.

Habitat management in wintering areas should include management of nocturnal roosting fields. We suggest that a good roosting field should provide adequate earthworms with low pesticide loads, ease of movement, and protection from predators (especially owls). Ground cover should be minimal with an abundance of exposed soil to facilitate walking and probing. A light, broken canopy of overhead vegetation 0.5–1 m high should be present to make it difficult for predators to locate foraging woodcock.

Losses

Since the turn of the century, bottomland hardwoods have been drained and cleared for flood control and agricultural purposes. Although early diversions of land use were not thought to limit woodcock populations, concern was later expressed by Glasgow (1958), Sheldon (1971:139), and Owen et al. (1977:168–169) because of the large area involved. During rapid farm mechanization from the mid-1950's to mid-1970's, 2.7 million ha of forested wetlands were cleared nationally (Haynes et al. 1988) with about 80% of that loss in the southeastern United States. The largest losses of bottomland hardwoods occurred in important woodcock wintering areas along the Lower Mississippi River and Atchafalaya River basins. Haynes et al. (1988) estimated that 25% of the remaining forested wetlands would be lost by 1995.

Habitat loss throughout the breeding range has been as extensive as loss of habitat on the wintering range, but more insidious. Natural forest succession has consumed thousands of hectares of woodcock breeding habitat. Rates of forest regeneration through timber harvesting have not kept pace with habitat losses due to succession. Over the past 20 years, this imbalance caused net decreases in the area of seedling-sapling forest in several northern states.

DISTRIBUTION AND ABUNDANCE

Breeding Range

American woodcock occur throughout eastern North America (Figs. 4, 5). Although woodcock are found well within the "Eastern Boreal Forest Region" (Soc. Am. For. 1975:fig. 1), the northern limit of breeding is indistinct. Sheldon (1971) suggests the northern extreme of woodcock range may be James Bay or southern Hudson Bay. J. C. Davies (pers. commun.) confirms courtship activity as far north as Moosonee, Ontario (51°N) while Nero (1977) documents breeding in Manitoba as far north as 50°N and courtship activity as far north as Gillam, Manitoba (56°N). Additional research is needed to confirm breeding at latitudes north of 50°N. Newfoundland is the northeast limit of breeding (Mendall and Aldous 1943; R. I. Goudie, pers. commun.). The probable northwestern extent of breeding is the Manitoba-Saskatchewan border (Mendall and Aldous 1943; Nero 1977; J. Christie, pers. commun.; W. H. Koonz, pers. commun.). The western limit of breeding (Fig. 4) follows Robbins et al. (1966).

Management Units

Woodcock are managed on the basis of Eastern and Central regions or populations (Owen et al. 1977) (Fig. 4). Coon et al. (1977) reviewed development of the concept of harvest units for woodcock and recommended the current regions over several alternative configurations. The selected configuration was justified because there was little interchange between regions based on band recoveries (Krohn 1972, Krohn and Clark 1977), and because regional boundaries conformed to the boundary between the Atlantic and Mississippi waterfowl flyways.

Breeding Densities

The North American Woodcock Singing-ground Survey (SGS) provides estimates of relative abundance of breeding woodcock throughout much of the primary breeding range (Sauer and Bortner 1991) (Fig. 4). This survey is based on a network of about 1,500 5.4-km routes on randomly selected secondary roads and has been conducted annually since 1968. Observers count the number of woodcock heard at 10 stops. The number of woodcock heard per route is an index of the relative density of woodcock in a geographic area. Changes in number of woodcock heard over time reflect population trends.

Because of the dynamic nature of woodcock habitat, counts along individual routes will rise and fall over time. However, because routes were randomly established (along secondary roads), the resulting trends should be representative of regional changes in habitat quality and woodcock populations (Sauer and Bortner 1991). Therefore, just as observed changes in the number of woodcock heard along an individual route probably reflect the effect of habitat changes on local populations, the observed SGS trends for states and provinces reflect the changing status of woodcock habitat (and hence, woodcock populations) in those areas.

Because breeding densities in southern states are low, the SGS is not conducted there (Fig. 4). Much of the northernmost breeding range is inaccessible; therefore, the SGS samples few areas north of 50°N.

Based on the SGS, highest densities of breeding woodcock occur in southern Ontario and Quebec, coinciding approximately with the Northern Forest Region (Soc. Am. For. 1975: fig. 1). While this forest region traverses both the Eastern and Central woodcock management

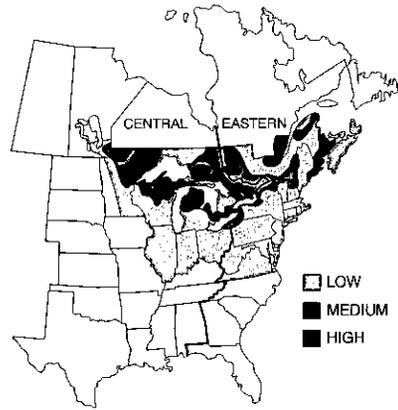


Fig. 4. Density and extent of breeding of American woodcock. Density is average number of woodcock heard per Singing-ground Survey route 1970–88 (from Sauer and Bortner 1991) except for Manitoba which is from 1989–92.

regions, woodcock are more abundant in the Central Region.

Woodcock increased in abundance and expanded their range in Manitoba during the 1970's (Nero 1977). Surveys conducted since 1988 showed high densities of breeding woodcock in central and southeastern Manitoba. This increased abundance of woodcock in Manitoba since the early 1970's is probably due to fires, recent timber operations in boreal forest and parkland areas, and an abundance of abandoned fields and pastures as a result of land use and ownership changes over the past 20 years.

Wintering Range

We used data from the National Audubon Society's Christmas Bird Counts to supplement wintering range information provided by Owen et al. (1977). The Christmas Bird Count (CBC) is the only systematic and widespread survey conducted across the wintering range of woodcock. These counts are conducted within a 2-week period of Christmas in a specified 24-km circle. An analysis of 5 years of these data (1985–89) was conducted on all routes. Data were adjusted for effort (party hours) and examined using program SURFER (Golden Software Inc., Golden, Colo.) to estimate wintering distribution and densities. Data from SURFER, abundance data from Glasgow (1958), and recommendations of R. R. George (pers. commun.) and R. M. Whiting (pers. commun.) were used to identify wintering areas (Fig. 5). The range of wintering woodcock suggested by this analysis is broader than indicated by Owen et al.

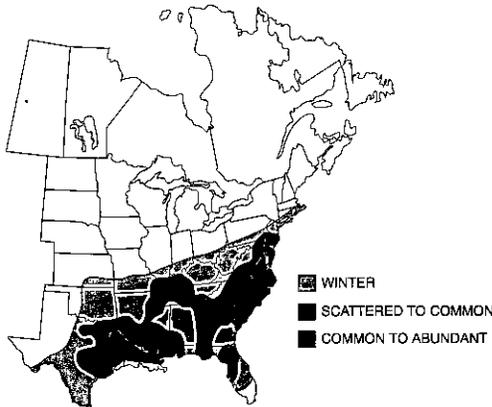


Fig. 5. Density and extent of wintering by American woodcock.

(1977). Data from program SURFER showed woodcock wintering further north and in a larger portion of Texas. Some of the discrepancy in the northern limits of the wintering range may be due to timing of CBC's. Counts conducted to 1 week before Christmas (still within the CBC time frame) may census migrating woodcock.

Three areas had high numbers of woodcock in the CBC: eastern Texas to central Louisiana, the coastal plain of South Carolina, and the lower Delmarva Peninsula to eastern Virginia. Recent increases in logging activity may be partly responsible for increasing attractiveness of the pineywoods of eastern Texas to wintering woodcock (R. R. George, pers. commun.). The lower Delmarva Peninsula is a combination migration corridor and wintering area. In particular, Cape Charles, Virginia has been regarded as a migration stopover where the highest counts in the nation are regularly recorded.

Population Trends

Population trends of woodcock are primarily monitored through the North American Woodcock Singing-ground Survey. Trend analyses of the Singing-ground Survey (Straw 1993) indicated that the Eastern population index declined at an average rate of 1.8%/year during 1968–93 (Fig. 6). There was a significant ($P < 0.05$) decline during 1985–93. The Central population also had a significant long-term (1968–93) decline of $-0.9/\text{yr}$ ($P < 0.01$) as well as a significant short-term (1985–93) decline of $-1.7\%/\text{yr}$ ($P < 0.01$). Individual states/provinces that showed significant long-term declines

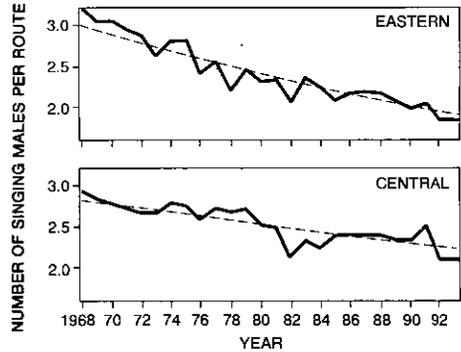


Fig. 6. Long-term trends and annual indices of number of woodcock heard on woodcock Singing-ground Survey, 1968–93.

were Connecticut, Ohio, Maine, Maryland, Massachusetts, New Brunswick, New Jersey, Nova Scotia, Pennsylvania, Rhode Island, Vermont, Virginia, and Wisconsin (Fig. 7).

HARVEST

United States Regulations

Hunting seasons for migratory birds in the United States are modified at the federal level through changes in frameworks within which states select seasons. During 1970–present, changes have been made in framework dates, bag limits, and number of days for hunting woodcock.

The opening framework date for the Eastern Region was 1 September from 1965 to 1981, 3 October in 1982, and 1 October 1983–present. The 1 September opening date for the Central Region has remained unchanged since 1961.

Management concerns regarding the opening framework date include balancing physiological condition of woodcock at the time of the opening against lost hunting opportunity if woodcock migrate prior to the opening date. Some biologists have questioned the wisdom of allowing woodcock hunting as early as 1 September. While woodcock chicks are fully mature by 1 September, molt of adult females appears to be delayed during drought years and some biologists have speculated these females may be more vulnerable to harvest. Another concern of mid-latitude states regarding their own choice of opening date is that opening the season too early may place excessive harvest pressure on local populations prior to arrival of migrants.

The closing framework date for hunting has

Table 2. Woodcock harvest and hunters (thousands) estimated by state surveys and the U.S. Fish and Wildlife Service's Annual Questionnaire Survey of U.S. Waterfowl Hunters in 1990.

State	State surveys		Annual questionnaire survey		Year*
	Harvest	Hunters	Harvest	Hunters	
Alabama	3.7	1.3	0.8	0.3	
Arkansas			1.5	0.6	
Connecticut	20.4	75.5	6.9	3.3	
Delaware	1.7	0.8	1.4	0.5	
Florida	3.4	0.9	1.9	0.6	
Georgia	9.1	3.2	2.8	1.1	1982
Illinois	11.3	6.1	8.1	3.0	
Indiana	5.1	3.9	2.9	1.0	
Iowa	2.3	2.7	2.5	1.3	
Kansas			0.4	0.2	
Kentucky	16.8	5.5	2.5	0.9	1989
Louisiana	143.0	21.0	39.7	6.2	
Massachusetts	33.0	13.9	11.1	4.7	1985
Maryland	6.6	2.4	1.9	1.3	
Maine	107.6	24.2	13.5	3.1	1983
Michigan	241.0	75.0	61.9	16.0	
Minnesota	114.0	27.0	36.1	12.0	
Missouri	19.0	5.7	3.5	1.3	
Mississippi	18.0	24.0	3.4	0.5	
North Carolina	17.7	4.3	3.9	1.6	1989
Nebraska			1.1	0.3	
New Hampshire			5.1	2.4	
New Jersey	28.0	2.7	7.7	2.6	
New York	44.9	17.4	15.5	6.7	
Ohio	10.5	5.9	8.5	3.1	1988
Oklahoma	7.2	2.1	1.1	0.5	
Pennsylvania	50.9	30.0	18.1	8.0	
Rhode Island			1.3	0.4	
South Carolina	8.2	3.8	2.3	1.1	1984
Tennessee	13.1	4.1	4.9	1.3	1986
Texas	7.7	2.4	4.0	1.3	
Virginia	10.0	3.5	5.2	1.8	1989
Vermont			6.0	1.4	
Wisconsin	139.8	37.2	44.0	13.9	
West Virginia			0.4	0.2	
Totals	1,094.0	406.5	331.9	104.5	

* Data for state surveys are from 1990 unless otherwise noted.

surveys have shortcomings. The AQS relies on randomly selected participants; however, it addresses only the harvest of woodcock by purchasers of Migratory Bird Hunting and Conservation (Duck) Stamps. This is a serious omission because the relative number of non-waterfowl hunters who hunt woodcock may vary by state and year in response to differing hunting opportunities, including the abundance of grouse, quail, and waterfowl. Participants in the WCS are not randomly selected. The WCS solicits past participants, their friends, hunters who requested to participate, and waterfowl hunters who indicated on the AQS that they also hunt woodcock. The upcoming National Migratory Bird Harvest Information Program is designed to

provide a suitable sampling framework from which accurate harvest estimates of woodcock can be made.

Recent United States harvest estimates based on the AQS are approximately 325,000 per year, although this does not include harvest by non-waterfowl hunters. Owen et al. (1977) estimated a national harvest of 1.5 million woodcock and over 0.5 million hunters by totaling estimates from all state hunter surveys. We surveyed state agencies to obtain similar values for 1970-90. We estimated a national harvest in 1991 of at least 1.1 million woodcock taken by 400,000 woodcock hunters (Table 2). Most of this harvest occurred in the Great Lakes states, Louisiana, and the Northeast.

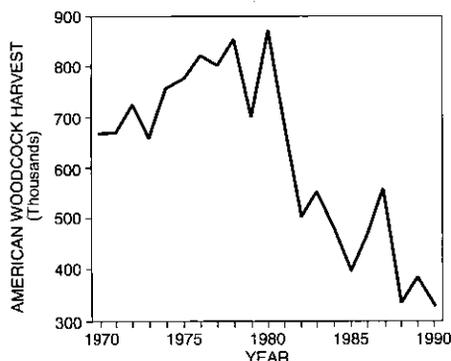


Fig. 8. Total United States harvest of American woodcock, 1970-90.

Total United States harvest based on the AQS declined during 1970-91, especially during the 1980's (Fig. 8). This decline was primarily due to declining hunter numbers; average seasonal bag as estimated by both the AQS and state surveys was stable over this period (Fig. 9). Some of the decline in harvest may also be due to fewer woodcock. The WCS furnishes estimates of cumulative changes in the daily and seasonal bag of comparable hunters, thus reflecting changes in opportunity or days afield independent of changes in the hunter population. The daily bag in the Eastern Region and the seasonal bag in both regions have declined since 1970 (Straw 1993). This suggests that woodcock in the Eastern Region have declined, and that co-operators in the Central Region are spending less days afield than previously.

Canadian Regulations and Harvest

Hunting regulations in Canada are set by the Canadian Wildlife Service in cooperation with provincial wildlife agencies. Ontario has 4 zones and Quebec has 5 zones with seasons that open at progressively later dates by latitude. Woodcock hunting seasons in some areas of Canada open as early as 1 September, and usually close long after all woodcock have migrated south. The bag limit throughout Canada has remained at 8 since 1970.

Harvests in Canada approximate 100,000 woodcock, with Ontario and Quebec accounting for more than 75% of the total annual harvest. The remainder of the harvest occurs in the maritime provinces of New Brunswick, Nova Scotia, and Prince Edward Island (Hounsell 1991). Al-

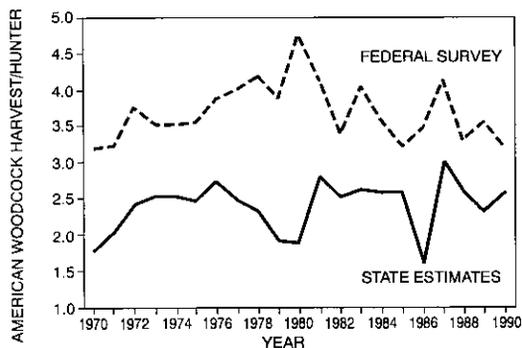


Fig. 9. Mean seasonal bag of all woodcock hunters as estimated by state surveys and the Annual Questionnaire Survey, 1970-90. Estimates from state surveys are based only on states which had estimates of harvest and number of hunters available. Annual Questionnaire Survey estimates are for all states which hunted woodcock.

though daily and seasonal bags per successful hunter have increased over the past 10 years, the number of woodcock hunters in Canada has declined.

Harvest Rates

Band recovery rates for woodcock vary from 2.5 to 4.7% (Table 3). Recovery rates for females were higher than for males, but did not differ between young and adults. Recovery rates were also higher for the Eastern Region than the Central Region.

Dwyer and Nichols (1982) discussed the relationship between recovery rates, hunting mortality, and annual mortality. Low recovery rates may suggest that hunting mortality accounts for only a small percentage of the total annual mortality of woodcock. However, they cautioned that reporting rates are unknown and crippling loss must be considered. Pursglove (1975) estimated crippling loss for woodcock may be as high as 17%. Dwyer and Nichols (1982) concluded that even if it could be estimated, knowledge of the harvest rate does not in and of itself permit inferences to be drawn regarding the effect of hunting on woodcock populations.

Sex and age composition of the harvest is measured by the WCS and an equivalent Canadian survey. Composition of the United States harvest is approximately 51% juveniles and 49% adults. Within the juvenile harvest, males and females are equally represented (51 vs. 49%), but this is not true in the adult harvest where females are more common than males (57 vs. 43%). Adult

Table 3. Mean annual recovery rates of pre-season-banded American woodcock, 1967–75 (after Dwyer and Nichols 1982).

Age/sex	Eastern population		Central population	
	Recovery rate	SE	Recovery rate	SE
Adult male	0.036	0.005	0.031	0.007
Adult female	0.036	0.005	0.047	0.008
Juvenile male	0.029	0.003	0.025	0.004
Juvenile female	0.046	0.007	0.032	0.006

males are less abundant in the population than adult females due to differential survival rates, although there also may be a slight harvest bias towards adult females (Dwyer and Nichols 1982).

MANAGEMENT NEEDS

Habitat

Continued habitat loss throughout breeding and wintering range will reduce woodcock populations and associated recreational opportunities. Historic causes of habitat loss have been drainage and land-use conversion in wintering areas and forest succession in northern breeding areas. Rates of habitat loss must be monitored so that appropriate agency goals for information and education can be set and habitat work on public and private lands can be planned. The best sources of information on recent habitat trends will probably be the U.S. Forest Service Forest Inventory and Analysis data and the Canadian Forest Service Forest Inventory. Incorporation of aerial photography (Dwyer et al. 1983) and satellite imagery into a Geographic Information System also has great potential for delineating patterns of woodcock habitat loss.

Protection and management of key sites used during the winter and migration should be a priority. Areas of extraordinary value to woodcock that are in danger of being degraded should be identified, and preservation and maintenance of these lands as quality woodcock habitat should be assured through acquisition or other methods (U.S. Fish and Wildl. Serv. 1990). Additional areas should be protected through market-based incentive programs, zoning, and wetland regulations.

Research on habitat requirements of wintering woodcock should be quickly followed by habitat manipulation experiments and ultimately, the development of a habitat management manual for wintering woodcock. The Migratory Bird Management Office of the USFWS

receives many requests regarding habitat management for woodcock in wintering areas. These requests are increasing as the public expresses more interest in managing land to benefit woodcock, and wildlife in general.

State, federal, and provincial agencies need to create habitat on public and private lands. This will benefit local woodcock populations and focus public attention on needs of woodcock and other early-successional species. Public agencies that own land suitable for woodcock should be encouraged to incorporate woodcock habitat management into their land management practices wherever possible. However, the public attitude towards management of public lands for early-successional wildlife has not been favorable. To gain public support for this type of habitat management, wildlife biologists need to be proficient in salesmanship and create an interest in woodcock and other early-successional species. When communicating with private landowners, biologists should transfer information on woodcock habitat management techniques in a manner that results in the greatest number of hectares managed. Existing government programs (e.g., Conservation Reserve Program, Agricultural Conservation Reserve, Stewardship Incentive Program) should be exploited to provide economic incentives to landowners who manage for multiple benefits, including woodcock.

Population Status

The status of woodcock populations is assessed annually for the purpose of recommending annual hunting regulations. The Singing-ground Survey (SGS) provides part of the basis for that assessment. Where possible, operational and analytical procedures should be improved to make the SGS a better tool for managing woodcock populations. For example, original route randomization maps should be reviewed to identify how many 10° blocks originally selected for establishing SGS routes were roadless in 1968 but are now accessible. It may be desirable to establish survey routes in these areas.

The Wing-collection Survey provides annual estimates of production and hunter success. However, a major criticism of the survey is that cooperators are not a random sample of woodcock hunters. Analytical techniques are used to correct for biases resulting from this shortcoming. Improvements to this survey should include a review of analytical techniques to see if biases

can be further reduced. Improvements to the sampling procedure should begin after implementation of the National Migratory Bird Harvest Information Program.

Production estimates for the current year are desirable (Dwyer et al. 1988), but such information is difficult and expensive to obtain. Furthermore, such information is necessary only if hunting regulations strongly influence population dynamics. Decisions regarding initiation of expensive new surveys should wait until additional studies of the influence of hunting on woodcock population dynamics are completed.

Harvest

It is necessary to understand the relationship between harvest regulations and actual harvest to make appropriate harvest regulation recommendations. Knowledge of the magnitude (including error) and geographic distribution of harvest is needed annually. Implementation of the National Migratory Bird Harvest Information Program will provide a suitable sampling universe of woodcock hunters to accurately estimate national woodcock harvests. This information will be used in the annual regulations process.

RESEARCH NEEDS

Continued investigations of the relationship of woodcock survival and reproductive rates to density-independent and density-dependent factors are needed. In particular, the effects of hunting on local and regional populations are unknown. To learn if hunting is compensatory or additive, research needs to identify density-dependent mortality factors, estimate their magnitude, and identify their role in population dynamics. The role of immigration and emigration in sustaining local populations that are subject to high hunting mortality should also be evaluated.

Estimates of harvest rates are needed to evaluate harvest regulations and to understand the role of harvest in the population dynamics of woodcock. Telemetry can be used to estimate harvest rates for that part of a season that woodcock remain on a study area. However, banding must be used to estimate harvest rates over the course of fall and winter. Crippling loss and band reporting rates must be examined so that harvest rates can be estimated from banding data. A feasibility study is needed to identify

the cost of a reward band study to estimate the reporting rate for woodcock bands.

During the past 15 years, little research has been conducted on the effects of contaminants on woodcock. Over this same time period, pesticide formulations and methods of application have changed considerably. The potential impact of modern pesticides on woodcock, habitat, and earthworm abundance needs to be evaluated.

Knowledge regarding habitat management in wintering areas is inadequate and has changed little since Owen et al. (1977) identified this research need. Progress towards this objective will require identification of wintering habitat requirements followed by experimental habitat manipulations. To be useful, such experiments should test habitat models over a wide geographic range and several years.

To recoup recent habitat losses, agencies should re-evaluate methods of stimulating habitat creation on private lands. Most new initiatives that aspire to encourage habitat creation on private lands use the same methods of contacting the public, contact the same persons as previous initiatives, and attempt to motivate those persons with the same techniques that were used (with mixed success) 20 years ago. Modern marketing techniques should be applied to future efforts. Research needs to identify individuals who have control of forested lands and are likely to implement woodcock habitat practices. After target groups have been identified, research should focus on discovering impediments to progress (e.g., why aren't these individuals creating habitat now? Is it lack of information, negative attitudes towards timber harvesting, a lack of cash incentives or something else?). Finally, research should focus on how to best contact and motivate target groups.

RECOMMENDATIONS

1. The U.S. Fish and Wildlife Service (USFWS) regions 3, 4, and 5 should implement the American Woodcock Management Plan (U.S. Fish and Wildl. Serv. 1990).
2. The USFWS, in cooperation with states, provinces, and flyways, should pursue the identified research needs.
3. The USFWS should continue development and implementation of the National Migratory Bird Harvest Information Program.
4. The USFWS, in cooperation with states, provinces, and flyways, should identify crit-

ical areas for protection, management or acquisition. Also, regional habitat demonstration areas should be created.

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Chapter 7

AMERICAN WOODCOCK

J. ASHLEY STRAW, JR.,¹ Migratory Bird Management Office, U.S. Fish and Wildlife Service, Laurel, MD 20708-4016

DAVID G. KREMENTZ, Southeast Research Group, National Biological Survey, Warnell School of Forest Resources, The University of Georgia, Athens, GA 30602-2152

MICHAEL W. OLINDE, Louisiana Department of Wildlife and Fisheries, P.O. Box 98000, Baton Rouge, LA 70898

GREG F. SEPIK, U.S. Fish and Wildlife Service, Moosehorn National Wildlife Refuge, P.O. Box X, Calais, ME 04619

Abstract: American woodcock (*Scolopax minor*) are managed as 2 populations, roughly separated by the Appalachian Mountains. Both the Eastern and Central populations have declined since 1968. The total United States harvest was >1.1 million in 1990 and the average composition was 26% juvenile males, 25% juvenile females, 21% adult males, and 28% adult females. Band recovery rates range from 2.5 to 4.7%. Major management needs include harvest estimates for the United States, a habitat management manual for wintering areas, techniques for monitoring habitat changes on a continental scale, and increased emphasis on management of early-successional forest habitat on private lands. Major research needs include identifying habitat requirements of woodcock in winter and improving understanding of woodcock population dynamics.

DESCRIPTION

Woodcock (*Scolopax* spp.) belong to Order Charadriiformes, Family Scolopacidae and Subfamily Scolopacinae, with 6 species recognized by Howard and Moore (1991). American woodcock (*S. minor*) are native to only the eastern portion of the Nearctic and have no recognized subspecies. European woodcock (*S. rusticola*) occur throughout much of the Palearctic region.

A variety of local names have been applied to American woodcock and contribute to confusion regarding distribution and abundance of this bird during the colonial period. Some local names include: timberdoodle, snipe, brush/cane/wood snipe, hill partridge, bec noir, bog borer, and bog sucker. Pettingill (1936:187) presents a more exhaustive list.

Woodcock weights vary with sex, age, feeding conditions, and time of year, but are generally highest immediately before fall migration when juveniles weigh as much as adults. Females collected in Maine during late October averaged 215 g while males averaged 174 g (Mendall and Aldous 1943, Owen and Krohn 1973). Woodcock plumage has a pattern of mottled browns, blacks, and buff that provides effective camouflage against a backdrop of fallen leaves. Short, powerful wings permit excellent maneuverability and facilitate flight through thickets and tangled brush as woodcock travel between feeding

areas, singing-grounds, and roosting areas. The 3 outermost primaries are narrow and cause the distinctive "twittering" sound characteristic of the male's courtship display and flushed woodcock. The short legs are composed of "white" muscle tissue and are poorly positioned for long periods of walking; woodcock usually fly between singing grounds, nocturnal roosting sites, and feeding areas.

The most distinctive features of woodcock are the large bill and the position of the eyes. The bill is 60–75 mm in length (Mendall and Aldous 1943) and has a prehensile tip that can be opened to capture food even while thrust in soil. The underside of the mandible and tongue are roughened and enhance the woodcock's grasp on earthworms and other invertebrates. The eyes are large and set far back in the head, providing a field of view behind, above, and to the front. This adaptation enables woodcock to detect approaching predators while feeding.

Female woodcock are larger than males when fully grown, permitting gender identification on the basis of body measurements. Bill length is considered the most reliable criteria for distinguishing gender (Mendall and Aldous 1943), as woodcock with bills <68 mm are usually males (\bar{x} = 64.7, SD = 2.8) and woodcock with bills >68 mm are usually females (\bar{x} = 71.0, SD = 2.6). Other reliable criteria include length of the wing (Artmann and Schroeder 1976), and width of primaries VIII–X (Greeley 1953).

Age of woodcock chicks to 15 days can be

¹ Deceased.

estimated from bill length based on the formula:

$$\text{AGE} = \frac{\text{BILL LENGTH} - 14}{2}$$

where age is in days and bill length is in millimeters (Ammann 1982). Approximate ages of older chicks can be estimated from a growth curve (Ammann 1982:fig. 1).

During early summer, 3 age classes can be identified: young of the year (identified by juvenal plumage until Jul–Aug [Duvall 1955]), second-year birds (identified by the presence of juvenal secondaries [Martin 1964]), and after-second-year birds. After molt in late summer, presence of juvenal secondaries is used to distinguish between hatching-year and after-hatching-year birds, and is the basis for age classification of wings collected during the U.S. Fish and Wildlife Service's (USFWS) "Wing Collection Survey." Primary wear is also used to differentiate between hatching-year and after-hatching-year birds during fall (Sheldon et al. 1958).

LIFE HISTORY

Spring Migration

Gonadal recrudescence begins in late January or February (Stamps and Doerr 1977, Roberts and Dimmick 1978, Walker and Causey 1982, Whiting and Boggus 1982, Olinde and Prickett 1991), coinciding closely with departure from wintering areas. However, during warm winters, some woodcock remain in the southern United States and begin nesting during February (Causey et al. 1974, 1987). Woodcock that breed in southern states may subsequently migrate northward. Causey et al. (1987) documented 2 examples, 1 involving a brood hen and the other, an unrelated chick, that were banded in spring in Alabama and shot that fall in Michigan. Woodcock are among the earliest spring migrants, arriving in northern breeding areas while snow and freezing temperatures are still common (late Mar–early Apr). Woodcock have moderate natal site fidelity. In a review of recoveries of chicks banded in Michigan, indirect (after year of banding) recoveries of woodcock shot in September were seldom (<5%) >48 km from site of banding (J. A. Straw, unpubl. data), suggesting that woodcock return to breed within several kilometers of where they hatched.

Courtship

Courtship continues after arrival in breeding areas. As long as temperatures are above freezing, males move at dusk and dawn to singing grounds in forest openings or fields and perform their courtship display. During the seasonal peak of courtship activities, the normal display period lasts approximately 40–50 minutes, consisting of 9–13 courtship flights (Mendall and Aldous 1943). Courtship begins with a ground display where the male utters a nasal "peent" every 2–4 seconds for about 1 minute. The ground display is followed by 45–60 seconds of aerial display (flight song) where the male flies in spirals above the singing ground and utters a melodic, warbling call while creating a distinctive whistling sound with the outer primaries of his wings. After alighting at the departure point, the male repeats the sequence of ground and aerial displays. On moonlit nights during the peak season of courtship activity, some males continue to perform sporadically throughout the night (Sheldon 1971).

Although males usually use >1 singing ground during a breeding season, 1 singing ground serves as a focal point of activity (McAuley et al. 1993). Furthermore, males have high affinity for the preferred singing ground in subsequent years, with about 30% of recaptures occurring on the same singing grounds, and 95% within 1.5 km of a singing ground used in a previous year (Sheldon 1971, Godfrey 1974, Dwyer et al. 1988). Although capable of breeding in their first year, many males present at singing grounds do not participate in courtship activities (Sheldon 1971, Godfrey 1974). These non-displaying (sub-dominant) males serve a vital function. Dominant males have high mortality rates on singing grounds (J. R. Longcore, unpubl. data) and are quickly replaced by sub-dominant males when killed (Modafferi 1967, Sheldon 1971, Godfrey 1974, Ellingwood 1983). The presence of non-displaying males results in a variable number of males per active singing ground. Over a 5-year period, Dwyer et al. (1988) observed a range of 1.2–2.4 males per active singing ground in Maine.

Females arrive in breeding areas at approximately the same time as males, and mating may occur several times during the following 2–3 weeks. A female may visit as many as 3 males per evening and >1 female may visit a male during 1 crepuscular period (McAuley et al. 1993). Visitation of singing grounds by females

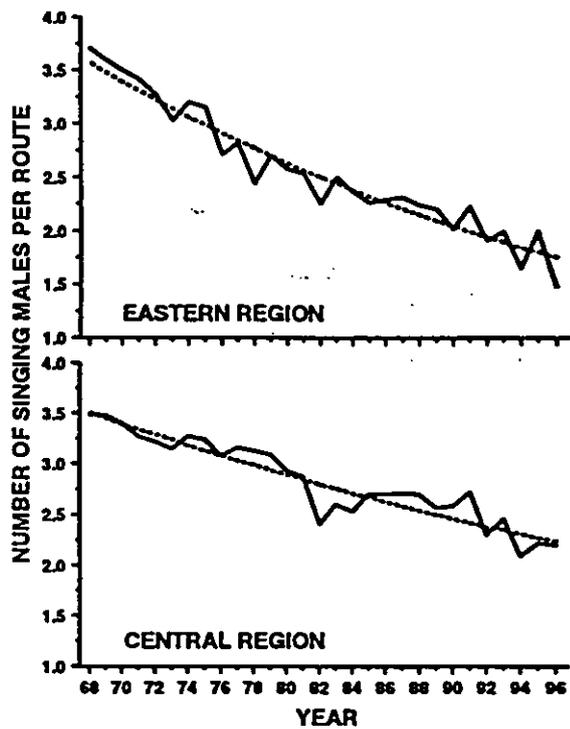


Fig. 1. Long-term trends and annual indices of the number of woodcock heard on the Singing-ground Survey, 1968-96.

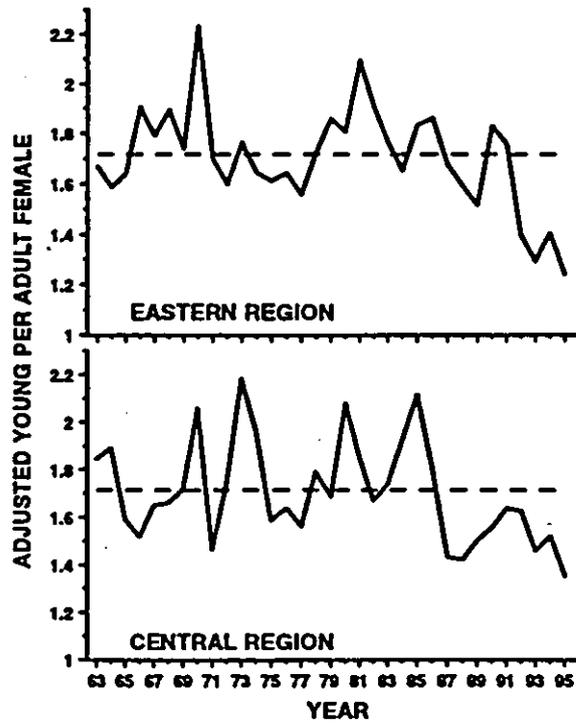


Fig. 2. Adjusted annual indices of recruitment, 1963-95. The dashed line is the 1963-94 average.

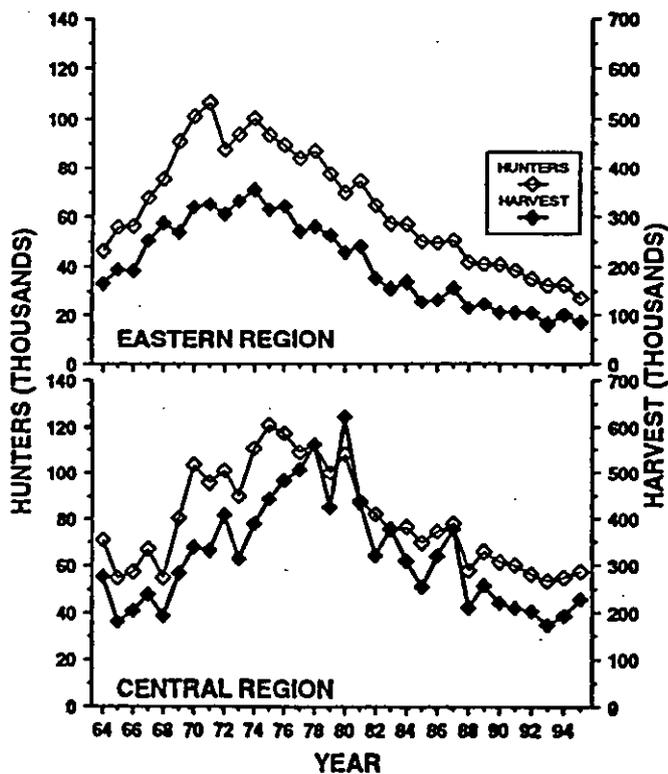


Fig. 3. U. S. harvest of American woodcock by duck stamp purchasers, and hunter numbers, 1964-94 (Martin 1979, and unpubl. rep., FWS, Office of Migratory Bird Management, Laurel, Maryland). Estimates from 1995 are preliminary.

1997

April

1997

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

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1997		May			1997	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES
CIVIL RESTITUTION ACTIVITY REPORT

CURRENT MONTH 11/01/1996 TO 11/30/1996 FISCAL YEAR TO DATE 07/01/1996 TO 11/30/1996 INCEPTION TO DATE 11/30/1996

	# CASES	AMOUNT	# CASES	AMOUNT	# CASES	AMOUNT
ORIG RESTITUTION VALUES ENTERED	20	\$10,009.10	162	\$106,125.84	3,220	\$1,985,885.20
HEARING COSTS ASSESSED	39	\$9,034.10	40	\$105,125.84	109	\$2,181,074.44
SALE OF CONFISCATED COMMODS	0	\$0.00	0	\$1,000.00	331	\$2,725.00
SALES EXCEEDING RESTITUTION	0	\$0.00	0	\$0.00	148	\$269,865.45
						\$71,951.21

RESTITUTION ASSESSED	20	\$10,009.10	162	\$106,125.84	3,220	\$1,985,885.20
PAYMENTS	22	\$1,624.63	136	\$19,087.00	2,056	\$304,802.66
DISCOUNTS FOR TIMELY PAYMENTS	17	\$698.02	116	\$11,018.23	1,367	\$150,615.50
OVERPAYMENTS	0	\$0.00	8	\$86.45	80	\$1,570.11
REFUND OF OVERPAYMENT	0	\$0.00	3	\$84.47	34	\$7,109.90
APPLIED CONFISCATED COMMODS	0	\$0.00	0	\$0.00	4	\$18,449.45
APPLIED EXCEEDING BALANCE DUE	0	\$0.00	0	\$0.00	4	\$10,601.49
REFUND OF CONFISCATED COMMOD.	0	\$0.00	1	\$515.60	17	\$75,953.27
RETURNED CHECKS	0	\$0.00	0	\$0.00	1	\$36.75
MISC. ADJUSTMENTS	0	\$0.00	0	\$0.00	2	\$35.00
DEBITS	0	\$0.00	0	\$0.00	12	\$9.37
CREDITS	0	\$0.00	0	\$0.00		
REASSESSMENTS	0	\$0.00	0	\$0.00		
DEBITS	3	\$639.71	4	\$652.91	19	\$6,552.96
CREDITS	5	\$159.37	8	\$20,602.56	51	\$33,340.48
WRITE-OFFS	0	\$0.00	2	\$550.34	203	\$112,888.18
ASSESSMENTS WITHDRAWN	0	\$0.00	0	\$0.00	6	\$1,399.24
FOUND NOT RESPONSIBLE	6	\$2,811.17	9	\$3,104.57	21	\$22,867.51
CASES VOIDED BY ENFORCEMENT	0	\$0.00	0	\$0.00	2	\$97.80
** TOTAL OUTSTANDING			922	\$1,443,274.49		

FOOTNOTE:

PAYMENTS FROM COLLECTION EFFORT	1	\$20.00	4	\$80.00	50	\$10,920.67
AMOUNT PAID TO COLLECTOR		\$5.00		\$20.00		\$2,730.16
FORFEIT OF CONFISCATED COMMODS	0	\$0.00	0	\$0.00	0	\$0.00 *

AGING OF SALE OF CONFISCATED COMMODITIES

VIOLATION DATE UNKNOWN	#	AMOUNT	CAN NOT BE INVOICED	AGING OF OUTSTANDING CASES	AMOUNT
1 - 30 DAYS	0	\$0.00	1 - 30 DAYS	3	\$632.01
31 - 60 DAYS	3	\$405.00	31 - 60 DAYS	16	\$8,237.90
61 - 90 DAYS	10	\$9,531.85	61 - 90 DAYS	13	\$8,681.86
91 - 120 DAYS	16	\$13,281.75	91 - 120 DAYS	13	\$2,560.62
121 - 150 DAYS	24	\$23,359.70	121 - 150 DAYS	12	\$1,999.68
151 - 180 DAYS	11	\$18,364.25	151 - 180 DAYS	19	\$50,897.39
181 - 365 DAYS	17	\$58,794.20	181 - 365 DAYS	14	\$11,796.26
OVER ONE YEAR	90	\$49,765.88	CASES SENT FOR COLLECTION	82	\$47,681.67
OVER TWO YEARS	157	\$121,948.62	OVER 1 YEAR PENDING	13	\$159,913.42
OVER THREE YEARS	80	\$58,507.72	OVER 1 YEAR (OTHER)	0	\$0.00
	21	\$6,279.50		737	\$1,150,873.68

** TOTAL AGING 429 \$360,238.47 ** TOTAL AGING 922 \$1,443,274.49

MONTHLY CIVIL RESTITUTION REPORT

PERIOD	NO. CASES ASSESSED	AMOUNT ASSESSED	CREDIT FOR SALE GOODS	NO. CASES PAID	AMOUNT PAID	DISCOUNTS TAKEN	Percent Dollars Paid	Percent Cases Paid
<u>FISCAL YEAR 1993-94</u>								
July, 1993	25	21,039	(9,778)	29	4,855	2,545		
Aug., 1993	53	44,922	(1,137)	41	7,950	3,603		
Sept., 1993	42	137,635	(17,938)	35	6,783	3,048		
Oct., 1993	49	21,471	(11,282)	40	3,285	1,519		
Nov., 1993	57	31,207	(13,260)	32	3,053	2,845		
Dec., 1993	53	13,777		27	6,507	6,713		
Jan., 1994	38	18,918		32	4,423	2,831		
Feb., 1994	68	38,131	(8,238)	46	9,124	5,993		
Mar., 1994	38	22,739	(2,482)	51	10,854	6,796		
April, 1994	14	44,732	(1,404)	27	7,307	4,632		
May, 1994	10	4,504	(165)	7	5,447	3,808		
June, 1994	29	26,167	(2,986)	12	1,886	1,214		
Total FY 1994	476	425,242	(68,670)	379	71,474	45,547	27.5%	79.6%
<u>FISCAL YEAR 1994-95</u>								
July, 1994	17	2,127	(335)	23	2,101	1,437		
Aug., 1994	41	96,403	(3,035)	20	1,010	605		
Sept., 1994	34	14,614	(14,002)	26	2,596	2,342		
Oct., 1994	94	17,426	(8,677)	38	2,922	3,179		
Nov., 1994	43	103,592		45	3,992	2,803		
Dec., 1994	68	31,400		35	4,315	2,329		
Jan., 1995	55	27,601		52	7,493	4,921		
Feb., 1995	70	61,119		41	6,472	3,973		
Mar., 1995	31	25,072		44	8,315	4,737		
Apr., 1995	13	15,353		16	3,565	1,538		
May, 1995	23	11,632		16	4,315	654		
June 1995	45	31,008		18	2,630	1,025		
Total FY 1995	534	437,347	(26,049)	374	49,726	29,543	18.1%	70.0%
<u>FICAL YEAR 1995-96</u>								
July, 1995	0	0						
Aug., 1995	46	17,425		27	9,028	1,729		
Sept., 1995	1	125		21	3,093	2,049		
Oct., 1995	122	206,244		29	2,720	1,161		
Nov., 1995	55	23,124		62	10,151	6,383		
Dec., 1995	50	18,607		32	4,781	2,803		
Jan., 1996	49	13,815	(15,296)	36	5,297	3,473		
Feb., 1996	50	14,717		38	5,778	3,417		
Mar., 1996	33	24,937		36	6,035	3,422		
Apr., 1996	30	11,007		36	7,173	2,712		
May, 1996	23	7,989		24	3,942	2,020		
June 1996	50	22,151		16	2,790	1,182		
Total FY 1996	509	360,141	(15,296)	357	60,787	30,350	25.3%	70.1%
<u>FICAL YEAR 1995-96</u>								
July, 1996	40	71,894		32	5,250	2,948		
Aug., 1996	32	5,363		32	6,255	3,784		
Sept., 1996	41	7,210		29	2,260	1,327		
Oct., 1996	29	11,093		25	3,698	2,262		
Nov., 1996	20	10,009		22	1,625	698		
Dec., 1996								
Jan., 1997								
Feb., 1997								
Mar., 1997								
Apr., 1997								
May, 1997								
June 1997								
Total FY 1997	162	105,568	0	140	19,087	11,018	28.5%	86.4%

SCHEDULE FOR FINAL RULES TO BE PUBLISHED IN STATE REGISTER

JAN-97

RULE - Special Bait Dealer's Permit

RULE - Oyster Lease Moratorium for New Acreage

Louisiana Department of Wildlife and Fisheries

NEWS RELEASE

James H. Jenkins Jr.
Secretary



CONTACT
504/765-2923

96-272

11/27/96

DECEMBER WILDLIFE & FISHERIES COMMISSION MEETING SET

The Louisiana Wildlife and Fisheries Commission will conduct its next regular meeting at 10 a.m. on Thursday, Dec. 5, 1996, in the Louisiana Room of Wildlife and Fisheries headquarters, 2000 Quail Dr., Baton Rouge.

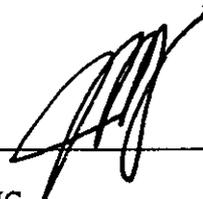
The meeting is open to the public. The agenda follows.

1. Roll call.
2. Approval of minutes of Nov. 7, 1996.
3. 3-D seismic activity.
4. Red tide report.
5. *Lease for fossil shell extraction.*
6. Enforcement and Aviation reports — November.
7. Division reports.
8. Set April 1997 meeting date.
9. Set May 1997 meeting date and location for shrimp hearing.
10. Public comments.
11. Adjourn.

November 26, 1996

NEWS RELEASE

APPROVED: _____

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke, positioned above the 'APPROVED:' line.

AGENDA FOR COMMISSION MEETING

The next regular public board meeting has been scheduled by the Commission for 10:00 A.M. on Thursday, December 5, 1996, in the Louisiana Room at the Wildlife and Fisheries Building, 2000 Quail Drive, Baton Rouge, LA.

1. Roll Call
2. Approval of Minutes of November 7, 1996
3. 3-D Seismic Activity
4. Red Tide Report
5. Lease for Fossil Shell Extraction
6. Enforcement & Aviation Reports/November
7. Division Reports
8. Set April 1997 Meeting Date
9. Set May 1997 Meeting Date and Location for Shrimp Hearing
10. Public Comments
11. Adjourn

State of Louisiana



James H. Jenkins, Jr.
Secretary

Department of Wildlife and Fisheries
Post Office Box 98000
Baton Rouge, LA 70898-9000
(504)765-2800

M.J. "Mike" Foster
Governor

November 26, 1996

MEMORANDUM

TO: Chairman and Members of Commission
FROM: James H. Jenkins, Jr., Secretary
SUBJECT: December Commission Meeting Agenda

The next regular Commission meeting will be held at 10:00 A.M. on Thursday, December 5, 1996, in the Louisiana Room at the Wildlife and Fisheries Building, 2000 Quail Drive, Baton Rouge, LA.

The following items will be discussed:

1. Roll Call
2. Approval of Minutes of November 7, 1996

COMMISSIONER BABIN

3. 3-D Seismic Activity

OFFICE OF WILDLIFE

OFFICE OF FISHERIES

4. Red Tide Report
5. Lease for Fossil Shell Extraction

WINTON VIDRINE

6. Enforcement & Aviation Reports/November
7. Division Reports

Page 2
Commission Meeting
November 26, 1996

8. Set April 1997 Meeting Date
9. Set May 1997 Meeting Date and Location for Shrimp Hearing
10. Public Comments

JHJ:sch

C: Clyde Kimball
Fred Prejean
Johnnie Tarver
Don Puckett
John Medica
Division Chiefs



WILDLIFE AND FISHERIES COMMISSION

JOHN F. "JEFF" SCHNEIDER

CHAIRMAN

RT. 1, BOX 201

LORANGER, LOUISIANA 70446

504 / 676-6733

Jimmy: Red Tide is
getting big play on
TV. How about putting
it on agenda for Dec.
meeting?

State of Louisiana



James H. Jenkins, Jr.
Secretary

Department of Wildlife and Fisheries
Post Office Box 98000
Baton Rouge, LA 70898-9000
(504)765-2800
November 18, 1996

M.J. "Mike" Foster
Governor

MEMORANDUM

TO: Johnnie Tarver, Asst. Secretary, Office of Wildlife
FROM: Hugh Bateman, Administrator, Wildlife Division *HAB*
SUBJECT: December 5, 1996 Commission Meeting

The Wildlife Division will have a short "division" report on the upcoming Woodcock Symposium and Wing Bee hosted here in Baton Rouge during January '97 by our Department. I have discussed making this presentation with Mike Olinde and Fred Kimmel. We have no formal agenda items that will require any Commission action.

HAB:sd

cc: Tommy Prickett
Dave Morrison
Bob Love
Mike Olinde

FAX TRANSMITTAL

TO: Glynn Carver, Chairman

FAX# _____

FROM Susan Hawkins

RE: December Commission Agenda

Please review the attached and let me know if okay or not.

Thank you..

DATE: November 22, 1996

TIME SENT _____

FOR INFORMATION CALL (504) 765- 2806

OUR FAX # (504) 765-2607

PAGES TO FOLLOW 2

MEMORANDUM

TO: Chairman and Members of Commission
FROM: James H. Jenkins, Jr., Secretary
SUBJECT: December Commission Meeting Agenda

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The following items will be discussed:

1. Roll Call
2. Approval of Minutes of November 7, 1996

COMMISSIONER BABIN

3. 3-D Seismic Activity

OFFICE OF WILDLIFE

OFFICE OF FISHERIES

4. Lease for Fossil Shell Extraction

WINTON VIDRINE

5. Enforcement & Aviation Reports/November
6. 2 Division Reports

Page 2
Commission Meeting

7. Set April 1997 Meeting Date
8. Set May 1997 Meeting Date and Location for Shrimp Hearing
9. Public Comments

JHJ:sch

C: Clyde Kimball
Fred Prejean
Johnnie Tarver
Don Puckett
John Medica
Division Chiefs

State of Louisiana



James H. Jenkins, Jr.
Secretary

Department of Wildlife and Fisheries
Post Office Box 98000
Baton Rouge, LA 70898-9000
(504)765-2800

M.J. "Mike" Foster
Governor

November 12, 1996

MEMORANDUM

TO: Deputy Secretary, Undersecretary, Assistant Secretary-
Office of Wildlife, and Assistant Secretary-Office of
Fisheries

FROM: James H. Jenkins, Jr., Secretary 

SUBJECT: Commission Meeting Agenda - December 5, 1996

Please write on the bottom of this memo and return to Susan Hawkins by Monday, November 18th any agenda items your office may have for the Thursday, December 5th Commission Meeting to be held in Baton Rouge, Louisiana, at the Wildlife and Fisheries Building, 2000 Quail Drive. This meeting will begin at 10:00 a.m. on December 5th. If you do not have anything for the agenda, please return memo and indicate so on the bottom of this memo. We cannot add anything to the agenda that requires commission action after we have published the agenda in the state journal.

Resolutions and Notices of Intent should be included with the list of items to be placed on the agenda. Thank you for your cooperation!

JHJ/sch

Marine Fisheries Agenda Items:

cc: Commissioners
Don Puckett
Winton Vidrine
Hugh Bateman
Bennie Fontenot
Karen Foote
Wynnette Kees
Karl Turner
Lyle Soniat
James Manning

- 1- set May 1997 meeting date and location for shrimp hearing
- 2 - lease for fossil shell extraction - Richard Koen

REC'D

NOV 12 96

ASST. SECRETARY
OFFICE OF FISHERIES

Karen Foote
11/18/96

KF/csg

State of Louisiana



James H. Jenkins, Jr.
Secretary

Department of Wildlife and Fisheries
Post Office Box 98000
Baton Rouge, LA 70898-9000
(504)765-2800

M.J. "Mike" Foster
Governor

November 12, 1996

MEMORANDUM

TO: Deputy Secretary, Undersecretary, Assistant Secretary-
Office of Wildlife, and Assistant Secretary-Office of
Fisheries

FROM: James H. Jenkins, Jr., Secretary *J. H. Jenkins*

SUBJECT: Commission Meeting Agenda - December 5, 1996

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JHJ/sch

cc: Commissioners
Don Puckett
Winton Vidrine
Hugh Bateman
Bennie Fontenot ✓
Karen Foote
Wynnette Kees
Karl Turner
Lyle Soniat
James Manning

RECEIVED

NOV 12 1996

INLAND FISHERIES
DIVISION

Dear Susan:
I will have one
item under Revision
Reports, entitled
"Hydrilla in Louisiana"
Shank you.

Bennie

State of Louisiana



James H. Jenkins, Jr.
Secretary

Department of Wildlife and Fisheries
Post Office Box 98000
Baton Rouge, LA 70898-9000
(504)765-2800

M.J. "Mike" Foster
Governor

November 12, 1996

MEMORANDUM

TO: Deputy Secretary, Undersecretary, Assistant Secretary-
Office of Wildlife, and Assistant Secretary-Office of
Fisheries

FROM: James H. Jenkins, Jr., Secretary 

SUBJECT: Commission Meeting Agenda - December 5, 1996

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JHJ/sch

cc: Commissioners
Don Puckett
Winton Vidrine ✓
Hugh Bateman
Bennie Fontenot
Karen Foote
Wynnette Kees
Karl Turner
Lyle Soniat
James Manning

Enforcement Report -
W.V.

State of Louisiana



James H. Jenkins, Jr.
Secretary

Department of Wildlife and Fisheries
Post Office Box 98000
Baton Rouge, LA 70898-9000
(504)765-2800

M.J. "Mike" Foster
Governor

November 12, 1996

MEMORANDUM

TO: Deputy Secretary, Undersecretary, Assistant Secretary-
Office of Wildlife, and Assistant Secretary-Office of
Fisheries

FROM: James H. Jenkins, Jr., Secretary 

SUBJECT: Commission Meeting Agenda - December 5, 1996

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JHJ/sch

cc: Commissioners
Don Puckett
Winton Vidrine
Hugh Bateman
Bennie Fontenot
Karen Foote
Wynnette Kees
Karl Turner
Lyle Soniat
James Manning

Cliff #

- 1- have known for 15 yrs.
- 2- Hqs. education & background
& interest to do the very
good job as coarim member
- 3-

4- Thanks - will be unresid.

RESOLUTION

LOUISIANA WILDLIFE AND FISHERIES COMMISSION

WHEREAS, the conduct of 3D seismic geophysical exploration activities in the marshes and water bodies of the state may cause injury to natural resources; and

WHEREAS, wildlife and fishery resources and their habitats may be impacted; now

THEREFORE BE IT RESOLVED, the Louisiana Wildlife and Fisheries Commission directs the Department to study these issues and report their findings and recommendations to the Commission.

Perry Gisclair, Vice-Chairman
La. Wildlife & Fisheries
Commission



DUCKS UNLIMITED, INC.

MATTHEW B. CONNOLLY, JR. / EXECUTIVE VICE PRESIDENT / NATIONAL HEADQUARTERS
One Waterfowl Way • Memphis, Tennessee 38120-2351 • (901) 758-3700

November 14, 1996

Mr. Jimmy Jenkins
Secretary
Louisiana Department of Wildlife and Fisheries
Post Office Box 98000
Baton Rouge, LA 70898-9000

Matthew B. Connolly, Jr.
RECEIVED

NOV 18 1996

OFFICE OF THE SECRETARY

Dear Mr. Jenkins:

On behalf of the officers and members of Ducks Unlimited, I would like to extend our sincere thanks to you, the Louisiana Department of Wildlife and Fisheries, and the sportsmen of Louisiana for the generous \$252,072.18 check dated October 28, 1996. The funds will be applied to Canadian NAWMP / NAWCA projects as mutually agreed upon by our respective staffs. I am advised that a final selection will be made by December 15th.

I congratulate you, your division and the sportsmen of Louisiana for your continued dedication to funding these projects and Ducks Unlimited's wetlands conservation efforts. We are proud to serve as your partner in this effort and look forward to continued participation from your department on this and other North American Waterfowl Management Plan efforts in Louisiana and Prairie Canada.

Sincerely,

Matthew B. Connolly, Jr.

MBC/kj

cc: Gene Henry Chuck Smith John Walker
Billy Joe Cross Ross Melinchuk Don Young
Earl D. Norwood, Jr. George Horton L. J. Mayeux
H. J. Elizondo Hugh Bateman William Colvin

President

Gene M. Henry
McFarland, Wisconsin

Chairman of the Board

Donald L. Rollins
Zionsville, Indiana

Executive Vice President

Matthew B. Connolly, Jr.
Memphis, Tennessee

First Vice President

Charles H. Wright
Sacramento, California

Senior Vice Presidents

David Brunkhorst
Port Clinton, Ohio

William Colvin
Bernice, Louisiana

Stephen G. Denkers
Ogden, Utah

James F. Dodd III
Wilmington, Delaware

John P. Egger
Colville, Washington

Robert J. Hawkins
Broken Arrow, Oklahoma

Richard S. Johnson
Richmond, Virginia

Craig Jones
Mitchell, South Dakota

L. J. Mayeux M. D.
Marksville, Louisiana

David A. Miller
Idaho Falls, Idaho

Jack Nugent
Waupun, Wisconsin

John T. O'Brien
Batavia, New York

Marc Pierce
Manhattan, Montana

Robert D. Sundberg
Mora, Minnesota

John A. Tomke
Indianapolis, Indiana

Treasurer

Julius F. Wall
Clinton, Missouri

Secretary

James D. Range
Fairfax, Virginia

Executive Secretary

Bill R. Willsey
Memphis, Tennessee

LASERS BEAM

Quarterly newsletter of the
Louisiana State Employees' Retirement System

"From the Director's Chair" by James Wood

FY 95-96 investment year performance is tops: Actuarial return, DROP account rates highest ever



I want to share some favorable financial numbers with our plan participants and retirees.

Fiscal year 1995-1996 was a good year for LASERS' investment performance. LASERS assets earned approximately \$364 million, which increased our total assets to just over \$4 billion. Our funded status also improved to 64.61%.

The market return on LASERS investments was 14.7% which equates to an actuarial return of 12.34%. This year's actuarial return of 12.34% was the highest actuarial return on LASERS investments since 1986. With the 1996 investment results, LASERS five-year average actuarial return on investments improved to 10.14%.

I am also pleased to report we will pay

"Power of Attorney" can assist members manage their benefit from LASERS

A limited "Power of Attorney" form is available upon request from LASERS. This form is designed especially to assist those LASERS' retirees or beneficiaries who wish to appoint an individual (also called an "agent") to help them deposit their LASERS benefits checks and pay their bills.

It also allows the agent to change the address to which the check is mailed. If a Power of Attorney is granted while a
(continued on page 3)

11.84% interest on our DROP participants accounts. This interest rate is applicable for individuals who have completed DROP participation. (No interest is paid while participating in DROP. Interest accumulates after DROP participation ceases and the money remains in the account.)

The 11.84% interest rate is the highest rate LASERS has paid since the inception of the DROP Program. The DROP Program interest rate is calculated by subtracting .5% for administrative expenses from the LASERS actuarial return of 12.34%.

While I am pleased to share these results with our plan participants and retirees, I must caution that this level of investment results cannot be sustained year after year.

Currently, we are in the longest extended bull market since the Great Depression. Even now in October when the stock market is reaching all time highs, we are concerned about interest rate fluctuations and the long-term effects after the November elections. Overall, we have good news to share but look to the future with a note of caution. ☺

LASERS Retirement Reference Manual To be mailed: Workshops are scheduled

The "Retirement Reference Manual" is now available for distribution. During October and November, it will be mailed to member agency Liaison Officers.

Paula Rhodes, Agency Liaison Field Representative, will conduct Workshops using the Manual. She is planning simi-

lar training sessions throughout the state for agency human resources and payroll staff members located in regional and parish facilities. The training session dates and locations are listed below:

The Manual will be used in the work-
(continued on page 3)

Retirement Reference Manual Training Schedule		
Date	Location	City
Nov. 12, 1996 9 a.m. to 3 p.m.	LA Technical Institute Room 109 980 Navarre Ave.	New Orleans, LA
Dec. 4, 1996 9 a.m. to 3 p.m.	Dept. of Wildlife & Fisheries Louisiana Room 2000 Quail Drive	Baton Rouge, LA
Dec. 11, 1996 9 a.m. to 3 p.m.	USL Student Union Evangeline Room 601 McKinley Drive	Lafayette, LA



50th anniversary event held July 18



More than 400 people attended LASERS' 50th anniversary celebration on July 18 at the Retirement System building in Baton Rouge.

The festivities featured remarks by former Gov. Jimmie Davis, who signed the original legislation creating the state retirement system on July 15, 1946. Gov. Davis also dedicated a plaque commemorating the anniversary.

That morning, Trustees and executive staff hosted a breakfast reception for all former Board members and spouses.

Prior to the ceremony, the popular and witty Gov. Davis posed for innumerable photos with retirees, Board members, staff and guests delighted to have the op-

portunity to talk with this famous Louisiana legend.

The plaque (now located in LASERS' reception area), lists both the original and current Board of Trustees and Executive Director -- along with the names of Governors Davis and Foster.

Following their remarks, Frank Jobert, current Board Chair, and James O. Wood, Executive Director, presented Gov. Davis with a lapel pin with the 50th anniversary logo (shown above). Gov. Foster, who was unable to attend, was also given a copy of this unique memento. Arrangements for the pins were made by Board member Kathy Singleton.

Gov. Davis shared his pride in help-

ing create a system which monthly provides \$27 million in benefits for more than 27,300 state retirees and/or their beneficiaries. In contrast, the first monthly benefits totalling \$1,011 were paid in 1946 to 12 retirees.

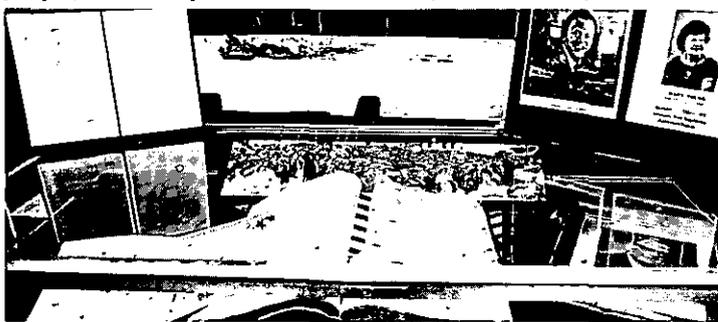
Historical displays were arranged throughout the flower and balloon-decorated Atrium. Through the efforts of Trustee Lelia Smith Detlefs, there were several photos, plaques, flyers and similar items loaned by Gov. Davis, as well as by former and current Trustees or their families. The State Archives loaned for display the original Legislative act establishing LASERS. Staff members also conducted tours of the building for interested guests. ●



LASERS' Executive Director James O. Wood unveils the commemorative plaque, observed by Board Chairman Frank Jobert and Gov. Jimmie Davis.



Board members sit in the first floor Atrium during the dedication ceremony. The Open House attracted retirees, active members and former staffers.



Mementoes of LASERS' 50-year history were displayed throughout the agency, including the original Legislative Act creating the retirement system.



This is a view of the festivities from a second floor balcony vantage point. Guests took photos, toured LASERS, and observed the historic displays.



Former Board members and their spouses enjoy reminiscing at a special breakfast reception, hosted by current Trustees and Executive staff members.



LASERS employees, who helped host the day-long event, pose for pictures prior to the dedication ceremony while guests chat in the background.

LASER FAQs (Frequently Asked Questions)

Question: There are rumors that DROP will be eliminated during the 1997 Legislative Session. Is this true?

Answer: No. LASERS has received many calls about this rumor. According to the staff of the Legislative Retirement Committee, there is no legislation prefiled concerning DROP -- and they do not expect any bills which would change or eliminate this popular program.

Currently, LASERS has 2,200 in DROP as of June 30, 1996. In 1995, there were 1,453 participants, up from 1,072 in FY 94. The one year waiting period to enter DROP (after becoming eligible for retirement was eliminated during the 1995 Regular Legislative session. 🌟

Prep schedule revised for remainder of 1996

LASERS' PREP seminars are set up to seat 100 participants. It is LASERS' policy to overbook seminars to allow for cancellations.

Low enrollment made it necessary to cancel seminars in Lake Charles and Monroe scheduled for September. These applicants were notified of the cancellations and given the option of choosing another city or being placed on the waiting list for 1997.

In addition to the above changes, there are no available spaces in the Baton Rouge seminars for the remainder of 1996. Applicants may choose to attend another seminar or be placed on a waiting list for 1997. An additional number of Baton Rouge and New Orleans seminars are planned next year. 🌟

Reference Manual printed, workshops are slated

(continued from page 1)

shops to train members of agency human resource, payroll and invoicing staffs concerning retirement system procedures, rules, and regulations.

An application for attendance will be sent to all Liaison Officers. Each class is limited to the first 50 participants. However, more classes will be offered

Process outlined for refunds; Caution, planning suggested

Members of LASERS may apply for a refund of employee contributions when they leave state service. When a member accepts a refund of contributions, all accrued rights in LASERS are forfeited.

A. The member may apply for a refund by filling out the **Refund of Accumulated Contributions form** (ER-2 form) on his/her termination day or any time after separation.

The form **must be obtained from and returned to the last employing agency for certification**. The agency is responsible for verifying that all information is true and correct before submitting the form to LASERS.

B. The ER-2 form must be filled out **completely**. The member must choose an option, include his/her home address, sign and date the form, and include a current phone number. Incomplete forms will be returned to the agencies for missing information. This can result in delay of the issuance of the member's refund.

C. State law prevents us from issuing a refund until the member has remained out of state service for at least 30 days. Our system is set up to process a refund 45 days from the termination date which allows for final contributions to post. Refund checks are issued only twice a month--on the 5th and the 20th. Therefore, most refunds are issued within **6 to 10 weeks** from the date of separation.

throughout the state during the the remainder of the current fiscal year.

During the summer, a survey was mailed to all Liaison Officers to determine the number of Manuals needed by each agency.

Please contact Mrs. Rhodes at (504) 922-0516 if you have any questions about the Manual. 🌟

D. If a member chooses option II on the ER-2, to rollover his/her contributions to another qualified retirement plan or an individual retirement account (IRA), this account must be set up with the investment company or new employer before submitting the ER-2 form. The check will be sent directly to the plan manager or investment company for the benefit of the member.

E. Contributions made after 1/1/84 will be subject to federal taxes and penalties at the time of refund unless the member chooses to rollover his/her contributions into an IRA or other qualified plan.

The refund of sheltered contributions will be reported to the IRS as taxable income. A 1099-R form is then mailed to the address provided by the member (on the ER-2) in January of the year after the contributions were refunded.

For additional information, consult the Membership Handbook, your agency Human Resource office or the LASERS' Membership Section. Telephone numbers are listed on page 4. 🌟

"Power of Attorney" form

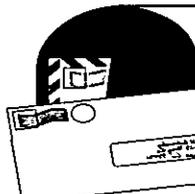
(continued from page 1)

retiree or beneficiary is healthy, it can avoid costly court proceedings in cases where those persons can no longer manage their retirement benefit.

Additional information or copies of this form is available from the LASERS' Legal Division. 🌟

Benefits Check Mailing Schedule

Check for:	Mail Date:
Nov.	Oct. 31
Dec.	Nov. 28
Jan., '97	Dec. 31



Here's how to set up deductions

Several inquiries have been made to LASERS concerning the establishment of deductions from monthly benefit checks for approved insurance company premiums and/or credit union loan or savings deposits.

1. If you are planning to retire:

--If you are a member of Group Benefits--

Check with your agency's human resource office to obtain LASERS' ER-10, Insurance Premium Deduction Authorization form. This form should be completed, signed, certified by your agency and accompany your other retirement documents.

--To arrange deductions for any of the others on the approved list-- Your agency human resource office can set this up, working with your payroll office.

2. If you are now retired:

To have your insurance premium deducted from you monthly benefit, contact your insurance company to make these arrangements (not LASERS). Also, contact your credit union to set up loan payments or savings deductions.

LASERS will make deduction from retirees' monthly benefits only after

receiving official correspondence for the approved insurance companies or credit unions listed below: :

Approved Insurance Companies

AFLAC	Group Benefits
Colonial	New York Life
LSU AD&D	Life Inv./long term care
Columbia	DOTD
DINA Dental	Capital American

Approved Credit Unions

La Capital Federal	LA State
LA DOTD	Pelican State
Dept. of Corrections	

For additional information, contact your agency (if you are currently employed -- or active).

If you are retired, and do business with any insurance company or credit union listed above, call or write their customer service office for assistance. (Note to retirees who are members of Group Benefits: Write to the Group Benefits Eligibility Section, P. O. Box 66678, Baton Rouge, LA 70896. Be sure to include your full name, mailing address, daytime phone number and area code, and your Social Security number. Also, your retirement benefit must be large enough to allow the deduction amount.) 

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Kim Delrie, PREP Coordinator

Connie Falke, PREP Backup

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LASERS, P.O. Box 44213
Baton Rouge, LA 70804-4213
Telephone: 504-922-0600 Fax: 504-922-0614

Statewide toll-free 1-800-256-3000
TDD: 504-922-0612

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LASERS BEAM
Louisiana State Employees' Retirement System
Post Office Box 44213
Baton Rouge, LA 70804-4213

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James H. Jenkins, Jr.
Secretary

Fredrick J. Prejean, Sr.
Undersecretary

Department of Wildlife and Fisheries
Office of Management and Finance
Post Office Box 98000
Baton Rouge, LA 70898-9000
(504)765-2860

M.J. "Mike" Foster
Governor

October 31, 1996

MEMORANDUM

To: All Wildlife and Fisheries Employees

From: Fredrick Prejean, Sr. *Fredrick J. Prejean, Sr.*
Undersecretary

Direct Deposit became available to our department in July, 1995. Since that time it has proven to be effective, efficient, safe and convenient for the employees who have chosen to participate.

Commissioner Mark C. Drennen has requested that we remind you of the availability of the Direct Deposit program and encourage full participation because of its benefits to you and the state. There have been a large number of pay checks delivered late in the last several pay periods. Use of the Direct Deposit option would circumvent the problems encountered with the Postal Service delivery of checks.

If you should have any questions or need any information regarding Direct Deposit, please call Laura Odom in payroll at (504) 765-2869.

cc: Jimmy Jenkins
Clyde Kimbrall
John Roussel
Johnnie Tarver

STATE OF LOUISIANA
DEPARTMENT OF CIVIL SERVICE
BATON ROUGE, LOUISIANA

101 72:20

October 29, 1996

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General Circular No. 001259

To: Heads of State Agencies and Human Resource Directors

Subject: Falsifying Job Descriptions

Issue Date: October 28, 1996

On September 15, 1994, General Circular No. 001165 was issued. It brought attention to a decision of the State Civil Service Commission which found that three employees had falsified a job description in an attempt to cause one of the three employees' positions to be reallocated upward. The three employees included the employee who sought to be moved upward, and two other employees in the chain of command. The purpose of the general circular was to warn state classified employees about the falsification of job descriptions.

Recently, on September 18, 1996, in Docket No. 11420, the State Civil Service Commission found that the same thing had occurred. That is, one employee and his supervisor were found to have falsified a job description in order to obtain a reallocation upward for the employee's position. The supervisor who signed the official Civil Service position description (Standard Form-3 or SF- 3) was the senior supervisor who was physically remote from the employee. The Civil Service Commission found, however, that a signature on a Standard Form-3 was more than ornamentation, and that each signature attested to the accuracy of the duties described thereon. The Commission recognized that it was incumbent upon a supervisor to determine the truth of the documents he signed. The pay of the employee who obtained the reallocation upward was reduced approximately 25% for a two year period. The supervisor was suspended for 45 days.

Please make your employees and your managers aware of this case. Managers should not sign unless they, themselves, are certain that a job description is true and correct.

Sincerely,



Allen H. Reynolds
Acting Director

JEFF SCHNEIDER
LA. DEPT. OF WILDLIFE & FISHERIES
BATON ROUGE 51200.01010
P. O. BOX 98000
BATON ROUGE, LA 70898