

Louisiana Natural Resources News

Newsletter of the Louisiana Association of Professional Biologists

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BUSINESS MEETING AT WILDLIFE FEDERATION CONFERENCE

Larry Reynolds, LDWF

The Louisiana Wildlife Federation is holding its 68th Annual Convention on March 2nd through the 4th at the Holiday Inn in Gonzales. As an affiliate of LWF, the LAPB will participate in the convention and hold our annual winter Business meeting following the Conservation Committee Meetings on Saturday, March 3rd. Conservation Committee meetings begin at 8:30 am with Migratory, Forest, and Upland Wildlife in the Livingston Room, and the LAPB Business meeting will be held in the same room at 1:30 pm. Bryant Hammett, newly appointed Secretary of the Louisiana Department of Wildlife and Fisheries will be the guest speaker at the Board of Directors Luncheon which starts at 12:45.

We encourage LAPB members to attend and participate in the convention for 1 very important reason. Each year, resolutions are submitted to the LWF involving wildlife, fisheries, habitat management, forest management practices, wetland restoration, public use, and other natural resources management issues. We are the only science-based professional resource-management affiliate, and it is important to provide that perspective in discussing, modifying, encouraging or discouraging passing of these resolutions. Resolutions approved by the

delegates become part of LWF's political-action agenda. In 2006, the LAPB submitted 4 resolutions, and each of them passed. The deadline for submitting resolutions for this year's convention was January 26th, and we did not submit any for this year.

As we have done in recent years, LAPB representatives will participate in the committee discussions on all submitted resolutions. We also have 1 vote in each of the committees. For those representatives who best represent the views of our association, we need your evaluation of each resolution. We will send those resolutions out to members via e-mail asking 1) if you support it or not, and more importantly 2) why you feel that way. You may not feel qualified to offer either, but any feedback you can give helps our representatives do a better job of incorporating sound natural resource knowledge and experience into the process. Of course, the best feedback is for you to attend the convention and participate directly.

LAPB Business Meeting

As with all business meetings, we have a few mundane housekeeping items to address as well as some important issues that will guide our actions in the near future. One of the biggest issues each year is to initiate planning for our Fall Symposium. I'm asking all of you to give some thought to a focus topic for this year's symposium and either bring those ideas to the business meeting or e-mail them to the Executive Committee. Also, we are considering moving the symposium up by 1 week to avoid scheduling conflicts with the academic schedule of some Louisiana universities and the annual meeting of the Louisiana Outdoor Writer's Association (LOWA), another group with whom we are affiliated. Preliminary agenda items include:

- 1) Support for LWF and LOWA affiliation decided every 3-5 years opposed to annual approval
- 2) Continued support for LOWA "Excellence in Craft" award
- 3) Proposal from ad hoc Scholarship Committee on new LAPB undergraduate scholarship
- 4) Planning for Fall Symposium
 - a) Changing the date
 - b) Focus topic
 - c) Poster session
 - d) Location for social

Again, we encourage all members to attend and participate, but even if you can't, please let us know of any other items you would like to see addressed at the business meeting.

Current Black Bear Research at Louisiana State University

Annelie Crook, Jennifer L. Baggett, and Michael J. Chamberlain, School of Renewable Natural Resources, Louisiana State University

Historically, the range of the Louisiana black bear (*Ursus americanus luteolus*), a subspecies of American black bear included forested regions of Louisiana, western Mississippi and eastern Texas. Currently, the subspecies persists only in 3 isolated regions in Louisiana, with one population located in the Tensas river basin (TRB), and 2 populations residing in the Atchafalaya river basin (ARB). The loss of >80% of bear habitat to agriculture is the primary cause of the population decline, and continues to be a threat to the abundance of the Louisiana black bear. As part of the management strategy for the Louisiana black bear, a multi-agency repatriation project was initiated in 2001 involving LDWF, USFWS, USDA Wildlife Services, and multiple private organizations. In an effort to increase abundance and establish movement between the geographically isolated TRB and ARB populations, female bears from the TRB were relocated to Lake Ophelia NWR, Red River NWR and Three River WMA, in east central Louisiana.



Photo by A. Crook



Photo by A. Crook

In an effort to increase knowledge and improve management strategies, two students at Louisiana State University have undertaken two very different and very important investigations of Louisiana black bear ecology and behavior. The first of these projects is being undertaken by Annelie Crook, with the primary objective being to create a Global Information System based spatial model of Louisiana black bear den selection. Dens are a crucial determinant of reproductive success because they are the site of birth and early maternal care of offspring. Louisiana black bears have been found to den in the cavities of large trees, most often Bald Cypress, or on the ground.

Denning research is being conducted on the northern most population of bears in the

TRB. Dens of radio collared female black bear were located in the winter months from 2003-2007. Dens are checked in order to determine the reproductive status of the female, which may be a factor in den selection. The model will consider landscape features including elevation, proximity to roads and trails, water, agriculture and habitat types, as well as microhabitat characteristics. Den locations of bears relocated to the Red River complex will serve as a validation dataset used to refine the model and apply it to other landscapes. The model will be used to identify landscape variables that are most influential in den selection, and to predict areas of optimal denning habitat in the occupied and repatriated areas.

As all of us know, when the daily activities of resident wildlife and humans interfere with one another, problems can arise. That's where Jenny Baggett's research comes in. One of the existing subpopulations in the ARB is in the highly fragmented coastal freshwater marshes and lowland forests of southern Louisiana. Consistent habitat loss, high-speed roadways, and sprawling urban and suburban development place many bears close to humans, where conflicts inevitably arise. Complaints associated with nuisance activity experienced in this region have steadily increased since 2000, warranting intervention by state and federal agencies.



Photo by Jenny Baggett

As a threatened species listed under provisions of the Endangered Species Act, nuisance Louisiana black bears require non-lethal management referred to as aversive conditioning, which in this study entailed the use of rubber buckshot, loud noise, and dogs. Research includes experimental testing of the effectiveness of

these conditioning techniques to deter nuisance black bear activity. Eleven nuisance bears, representing approximately 10% of the estimated population in the region, were captured in residential and industrial areas reporting nuisance activity. Each bear was fitted with a radio-transmitting collar and released within 2 km of the capture site so that bears would associate the treatment with the affected area. Following release, each bear was randomly assigned one of 2 treatments. The first treatment ($n = 5$) consisted of using rubber buckshot and loud noise, and treatment 2 ($n = 6$) used the same conditioning techniques in combination with being chased by dogs. All bears were monitored intensively using radio-telemetry to estimate movements, space use, and interactions with anthropogenic and urbanized resources throughout their environment. Preliminary results indicate that aversive conditioning techniques have limited short term effectiveness, as 10 of 11 bears, regardless of treatment, engaged in confirmed nuisance activity within 5 months.

LAPB Members to Participate in 4th Ark-La-Miss Wildlife Management Symposium

John Pitre, NRCS

On February 3, 2007, the fourth Ark-La-Miss Wildlife Symposium will be held at the Louisiana Tech Student Center in Ruston, La. This year the Symposium will focus on waterfowl. Specifically, attendees will have the opportunity to learn from the foremost waterfowl experts; accomplished waterfowl biologists from universities and federal, state, and non-governmental conservation organizations. Many of these speakers are members of the Louisiana Association of Professional Biologists. The following topics will be covered during this one day program: how surveys are conducted, how seasons are set, where and why ducks move, what habitat ducks use, what ducks eat and how to provide food, how to manage bottomland hardwoods for waterfowl, how to manage agricultural crops for waterfowl, and the assistance programs available to landowners.

The Symposium will open at 7:45 am with registration. Dr. Jim Dickson will welcome participants, introduce speakers, and moderate the opening session. The morning session will begin with Mr. Fred Roekter (USFWS) speaking on ***Breeding Ground Surveys***. Mr. Mike Checkett (DU) will discuss ***Weather and Duck Movements***. Mr. Paul Link (LSU), Dr. Al Afton (USGS – La Cooperative Fish & Wildlife Research Unit, LSU), and Dr. Bobby Cox (USGS) will cover ***Habitat Use, Movements, and Survival of Female Mallards in Southwestern La***. Following a quick break, the mid morning session will begin, moderated by Dr. Kim Tolson. Mr. Bruce Davis (LSU Ag Center), Dr Al Afton, and Dr Bobby Cox will discuss ***Winter Habitat Use, Survival, Cause-Specific Mortality, and Emigration of Female Mallards in the Lower Mississippi Alluvial Valley***. Following that presentation, Mr. Robert Helm (LDWF) will discuss the ***Facts about Avian Flu that Hunters Should Know***.

Following lunch there will be two additional sessions. The first afternoon session will be moderated by Dr. Don Reed (LSU Ag Center). Mr. Larry Reynolds, LDWF Waterfowl Biologist and LAPB Past President will speak on ***The Process for Setting Annual Waterfowl Regulations and Are Hunters satisfied with the Results? Plants Important to Ducks*** will then be presented by Bob Strader (USFWS). The final session of the day will be moderated by Mr. Larry Savage. This session will begin with Dr. Leigh Fredrickson of Wetland Management and Educational Services speaking on the topic of ***Producing and Providing Required Foods for Migrant and Wintering Dabbling Ducks and Geese in Modified Wetland Systems***.

The final presentations of the day will highlight available conservation programs which provide technical and financial assistance to landowners in Louisiana. This topic will be discussed from three points of view. Mr. John Pitre (NRCS Wildlife Biologist and LAPB Treasurer) will discuss available Farm Bill Programs, Mr. Robbie Howard (DU) will talk about Ducks Unlimited, Inc.

assistance to landowners, and Mr. John Dickson and Mike Renfrow (USFWS) will speak on the Partners for Wildlife Program.

This event is sponsored by the School of Forestry-Louisiana Tech University, LSU Ag Center, Department of Biology-the University of Louisiana at Monroe, the U.S. Fish and Wildlife Service, and the Louisiana Department of Wildlife and Fisheries. This program will provide Continuing Forestry Education (CFE) as recognized by the Society of American Foresters, Continuing Logger Education (CLE) and Continuing Education Contact Hours as recognized by the Wildlife Society (TWS). For more information regarding registration, please contact Dr. Jim Dickson at (318) 257-4985.

Regional and Long-Range Movements of Female Gadwalls along the Gulf Coast

Mike Brasher, Biological Team Leader, Gulf Coast Joint Venture

Over 75 percent of North America's gadwall population winters along the Louisiana and Texas Gulf Coasts. Gadwalls are abundant in the coastal marshes of these states and typically rank first or second among all duck species in terms of numbers

harvested. Despite their significance to hunters and habitat managers in this region, waterfowl biologists have a relatively poor understanding of gadwall habitat use, regional and long-range movements, and winter survival rates. Gadwalls spend extensive time feeding during winter. Consequently, habitat



Photo by Frank Rohwer

quality, habitat quantity, and disturbance may be important factors influencing choice of wintering areas, regional movements, and winter survival rates.

The Gulf Coast Joint Venture (GCJV), Ducks Unlimited (DU), Texas Parks and Wildlife Department, Louisiana Department of Wildlife and Fisheries, US Fish and Wildlife Service, and Louisiana State University have initiated a cooperative research effort to better understand habitat use, movements, and survival of female gadwalls along the Louisiana and Texas coasts during winter. Because few previous studies of gadwall have been conducted during winter, research partners embarked on a pilot study during autumn 2006 to gain insight into logistical and financial needs of a larger, full-scale telemetry study of gadwall wintering ecology. Research partners elected to use 20g satellite transmitters (i.e., Platform Transmitter Terminals [PTTs]) during the pilot study because

available logistical resources were insufficient to enable the use of conventional transmitters and the pilot study only required coarse resolution of gadwall movements. Researchers chose a sample size of 25 female gadwalls for the pilot study, of which 13 were to be marked in Louisiana and 12 in Texas.



Photo by Bruce Davis

With assistance from LSU graduate students Paul Link and Bruce Davis, Rockefeller Refuge waterfowl biologist Jeb Linscombe, and waterfowl biologists at J.D. Murphree and Peach Point WMAs in Texas, began attempts to capture gadwalls during early November 2006. Heavy rains during November caused flooding of many coastal wetlands and delayed capture efforts until early December. On December 8, researchers captured 17 female gadwalls at Rockefeller Refuge, and because of initial difficulties capturing gadwalls, elected to attach PTTs to 16 of the 17

captured females. Gadwall capture efforts in Texas were unsuccessful, and researchers consequently resumed efforts during January to capture the remaining sample in Louisiana. Because of continued difficulty capturing large numbers of gadwalls during late winter periods when gadwalls become less gregarious, researchers recently decided to cease trapping efforts for the pilot study and retain the remaining 9 PTTs for deployment during the full-scale study expected to begin during autumn 2007.

To enable researchers to monitor movements and status of marked female gadwalls on an essentially real-time basis and encourage public interest in the project, staff at DU's Southern Regional Office in Jackson, MS and the GCJV office in Lafayette, LA developed an interactive web site that aggregates and displays locations and movements of marked females. This web site is located at www.ducks.org/gadwallstudy and contains additional information related to this study and the current status of marked females. In exchange for financial contributions to the pilot study, private donors were given the opportunity to assign names to marked female gadwalls. Based on data received to date, it appears that only 7 of the 16 marked females remain alive. Hunters in southwest

Louisiana harvested and reported 2 marked female gadwalls, and researchers have confirmed the death of at least 1 additional marked female. Researchers are uncertain at this time of the exact status of the remaining 6 marked females. Battery life of PTTs is expected to enable monitoring of movements and status of marked females at least until July 2007.

An important outcome of this pilot and subsequent full-scale study will be an enhanced understanding of gadwall habitat use during winter and its relationship to GCJV habitat conservation objectives for wintering waterfowl. Additionally, these studies will establish baseline estimates of gadwall winter survival rates, identify specific causes of gadwall mortality during winter, and elucidate relationships among weather, disturbance, and gadwall movements and habitat use.

Call for Articles

All of you, as biologists in Louisiana, have been or are currently involved in research, management activities, public outreach, policy or other professional activities that our membership would benefit from being enlightened on. An integral component of the work we do is sharing our findings with others in our field and beyond. Writing short articles for inclusion in our Newsletter would be a great way to let other biologists in Louisiana know what you're up to, what you're finding out, or just what you think is exciting about what you're doing. With that said, you are all encouraged to submit articles or announcements for inclusion in the newsletter to the editor, Matt Pieron, at mpiero1@lsu.edu.