

HELLO

This CD contains the files from the Louisiana Amphibian Monitoring Program (LAMP). There are two portions to the CD, an audio portion and a data portion. These are treated as separate volumes when mounted on a computer called "LAMP Audio ", "LAMP documents" and "Useful Web links".

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(1) AUDIO CD INFO

The audio CD was created from recording a cassette tape onto a computer and copying the tracks onto CD. Some sections have been re-narrated, and new tracks have been added for the Rio Grande chirping frog and the Cuban treefrog. We have split the narration preceding the call samples so that the calls may be reviewed without the narration.

The audio portion of the CD should run on any standard CD Player. To play the audio portion on a computer simply use the same program used to play a music CD.

(2) DATA INFO & WARNING

Warning #1: Do not attempt to work with both the audio CD portion and the data portions at the same time. Many computers may freeze up, requiring a reboot.

Warning #2: The files in the Document folder are the most recent files. Use the files in the Document Folder instead of the PDF files from the web page to create your datasheets.

(3) BACKGROUND ON LAMP

This CD: All material on this CD Originated with the Louisiana Department of Wildlife and Fisheries, Natural Heritage's Louisiana Amphibian Monitoring Program (LAMP). The LAMP is part of the North America Amphibian Monitoring Program (NAAMP). NAAMP is a national effort, coordinated in the United States by the U.S. Geological Survey (USGS), to monitor amphibian declines across the United States.

LAMP history: First established in 1996, the Louisiana Amphibian Monitoring Program or LAMP is a mostly volunteer effort coordinated in part by Louisiana Department of Wildlife and Fisheries (LDWF) to begin accumulating data on Louisiana's amphibians (frogs, toads and salamanders). The first part of this effort has been to establish calling frog surveys.

The decline: There is widespread concern that populations of many species of amphibians are declining throughout the world. Human influences, such as wetland reduction, pollution from point sources, and deforestation seem to be connected with some of the reductions in amphibian populations. In addition, concern increased in the late 1980s when biologists began reporting declines that apparently had little to do with direct local human activity. It became evident that factors on a broader scale may be implicated, such as disease, acid rain, pollution from stormwater runoff, and increases in UVb radiation.

The NAAMP: To address this situation, the World Conservation Union established the Species Survival Commission in 1991. From this, the Declining Amphibian Populations Task Force (DAPTF) was organized. The DAPTF operates worldwide to gather data on amphibian declines and possible causes. In an effort to make a contribution to the global gathering of information, a group of North American scientists met in 1994 and formed the North American Amphibian Monitoring Program (NAAMP). The Louisiana Amphibian Monitoring Program (LAMP) is a part of that continental program. It is a partnership program utilizing resources from the Department of Environmental Quality, the Department of Wildlife and Fisheries, the U.S. Geological Survey, and many volunteers not affiliated with these agencies.

Research objective: If the declines are indeed occurring, a careful monitoring of amphibian populations could provide an early indication of potentially serious environmental deterioration. The object of LAMP is to enlist volunteers to determine the baseline for populations of Louisiana anurans.

Calling surveys: The USGS provided a framework for the gathering of statistically defensible data on North American amphibians, beginning with anuran calling surveys. Each state or Canadian province is encouraged to develop the data within its borders. With your cooperation, Louisiana will continue its active commitment to the monitoring program.

Route rationale: Acquisition of the data is organized around the censusing of randomly chosen highway or waterway routes. These routes were chosen by the USGS, and there are 59 for Louisiana. The route then tracks for a distance along roads designated on the route map; the actual distance will be determined by where the stops fall. If there are few wetlands along a route, the final length of the route could be more than 15 miles, or it could be as short as 4.5 miles if a stop is chosen for every 0.5 mile along continuous habitat (such as a bayou bank or swamp edge).

Route verification: Volunteers will "adopt" routes. The first time the route is set up, the person(s) will need to verify the route suggested by the USGS, since parts of the indicated route are often not feasible for some reason, such as surface condition (dirt roads will be a problem in wet weather), private, too busy, etc. The ground verification will result in changing parts of the route. All roads picked for final use in the survey should be public, all-weather roads. When parts of the route need to be abandoned, they should be replaced by the nearest feasible road, and the route returned to the

original path as quickly as possible. Fast or busy roads can be considered as connections between segments of a route, and not part of the route itself. Thus, wetlands along such roads do not need to be considered as potential stop sites. Changes in the routes should be marked on the USGS map and sent to the state coordinator for filing in the state central data collection.

Site selection: Once the routes are known to be physically feasible, the USGS procedure asks that 10 wetland sites, or "stops" be designated along each route at least 0.5 miles apart to make certain that the listening areas do not overlap. This is to be done by traveling the route in daylight and selection the wetland areas along the route. Possible choices in Louisiana will include a combination of swamp, roadside ditches, bayou banks, wet meadows, creek meanders, marsh, temporary ponds, permanent ponds, rice/crawfish fields, etc. Location of each site along the route is easily determined if the automobile has a trip meter that can be set at 0.0 at the start, and the sites then marked on the map by their mileage location. If handheld GPS equipment is available, GPS coordinates would be very useful.

The ten stops determine the length of the route; it will end at the tenth stop. Routes on waterways will probably be continuous frog habitat, and the ten stops on these will likely be every 0.5 miles, for a total route distance of about 4.5 miles. Once the stops are selected and marked on the map, a copy should be sent to the state coordinator. A form (included with this CD) for providing a general description of the habitat (marsh, pond, roadside ditch, flooded grassy field, creek, etc.) of each stop should be developed. The location of the "0.0" start site should be given as something like "0.2 mi. N on Hwy. 27 from intersection with Hwy. 90 – 100 feet N of bridge marker" or something similar that will get someone to within 30 – 50 yards of the starting point.

The best time to do the wetland site selection is probably during a drier period between rains; recent rainfall can make it difficult to tell the difference between true wetland habitat and rainfall collections that quickly disappear.

Photos: Since habitat modification is suspected as a cause of many amphibian population declines, a record of the habitat in the first year of the survey is desirable. The surveyor is asked to photograph each stop, using 35 mm color film, and send a copy of the print and the negatives to the state coordinator. Other arrangements to photograph the route stops will be made if this request is burdensome.

Permanent markers: It may be helpful to place something that is noticeable at night to mark the stop locations, especially the start point. The Louisiana Department of Transportation and Development has given permission for survey personnel to install and maintain reflectors placed on the roadways. At this guidance further details are not available. Reflective tape attached to trees, fence posts, etc. may also be used.

Site description form: Blank forms are included on this CD. The form is very important for efficient surveying. The route set-up must include carefully detailed information on each stop, particularly the first one (0.0). A question to determine adequacy of detail might be: could someone take the description form and run the route safely and completely?

When to run the routes?

Run season: The run season really should begin in December. A daytime run should be made to determine the status of each route. At this time notes should be taken on the marking system, habitat changes, road condition changes, etc.

In order to sample all species at each stop, surveyors are asked to do the routes three times per season. The optimum dates for these runs can be found in the FIXED SITE GUIDE, in the Unified Protocol Summary and at the top of the LAMP survey data sheet.

NOTE: Safety is the primary consideration in this monitoring project. Surveyors are urged to avoid any unsafe situation associated with these activities. IF IN DOUBT, DON'T GO OUT! And, always remember to respect private landowners' rights by not trespassing on their property!

CDs are available to assist in training new volunteers or to refresh anyone who wishes it. It may take several years for all of the routes in the state to be adopted, and thus provide statewide data on anuran populations. However, the data that is available will be compiled yearly and distributed via a state newsletter. All participants will receive the compiled information. A national newsletter prepared by the USGS will also be sent.

HOW DO YOU PARTICIPATE IN THE MONITORING PROGRAM?

1. Express interest to someone in the program.
2. Secure a route map (or several), and data sheets.
3. Set up a route. If a route is already established, proceed to step 4.
 - a. Ground truth the roads on the route.
 - b. Select and show location for ten wetland sites.
 - c. Photograph the sites (optional).
 - d. Send to the State coordinator:
 - (1) corrected map(s) showing the new route
 - (2) site habitat description form
 - (3) site locations shown on a copy of the route map
 - (4) photos and negatives (if taken).
4. Run the route(s) and collect the data.
5. Mail or email data sheets to the State coordinator (Jeff Boundy, see below).

(4) GUIDE TO THE DOCUMENTS FOLDER

There are two folders in addition to this READ ME File on the DATA portion of this disk: "LAMP Documents Folder" and "Useful web links".

LAMP Documents Folder

In the "LAMP Documents Folder" are folders with Exotic species information, information about LAMP routes, LAMP protocols, and the NAAMP Datasheets folder. There is also an Audio transcript of the narration on the audio portion of the CD, a conversion chart from Fahrenheit to Celcius, and a Quick Guide to Frog Calls.

Exotic Species Folder

Contains two folders: One with an offline webpage, audio and a PowerPoint presentation on the Rio Grande Chirping Frog; another folder has off-line web pages, audio and photos of Cuban tree frogs.

LAMP routes folder

Contains forms for documenting a route, LAMP Route Survey History, detailing the observation history of various LAMP routes throughout the State, and LAMP Routes 2018, a listing of routes by number, with route name, previous or current observer and current status.

LAMP Protocols Folder

Contains route data sheets in PDF and Word format, a Fixed site guide and a Unified Protocol Summary. Use these data sheets instead of the forms that are downloadable from the LAMP web site. These are more recent and include corrections and modifications. In addition to routes generated by the NAAMP, you can set up a local site as a fixed site. Information on how to set up and register a fixed site can be found in the FIXED SITE GUIDE 2019 pdf.

NAAMP Datasheets folder

Copies of the standard North American Amphibian Monitoring Program data sheet in PDF and Word format are included for comparison to LAMP data sheets.

Useful Web links folder

Contains a link to a duplication of the LDWF LAMP web site (circa 2005). This site has a description of the LAMP PDF files for the various forms, sound clips of the various frog species information about their natural history, photographs of selected frogs, and other useful information. The LDWF has since revised their web page, however because some of the links in the revised web page do not work, we have kept the old website on this CD. When the new web site has fully functioning links, we'll replicate that web site on this CD.

Also has links to:

FrogWatch USA

The National Amphibian Atlas

Amphibian Nonindigenous Aquatic Species

North American Amphibian Monitoring Program (NAAMP) website

NAAMPs' Frog Call ID Quiz, providing an online practice and test calls for volunteers to improve their skills at identifying individual species and mixed groups of species. The link to the frog quiz site is: <http://www.pwrc.usgs.gov/frogquiz/>

If you are having problems opening a file, make certain you have the appropriate software installed. On some systems certain files will not open because the programs they require are either not

present on the computer or because the program had not been linked with the extension. In the latter case it is easier to open the file from inside the program. Table 1 should help you figure out the problem if you are having difficulties.

TABLE 1. Extensions and Application (Program) Guide

Extension	Program/File Type	What to use or where to get
*.doc	Microsoft Word	retail
*.gif	graphics file	most picture viewers
*.html	hyper text markup language	any internet browser
*.jpg	jpeg picture file	most picture viewers
*.pdf	Acrobat Reader	free: http://www.adobe.com
*.ram	RealPlayer	free: http://www.real.com
*.rm	RealPlayer	free: http://www.real.com
*.tiff	tagged image file format	most graphics programs (irfanview, etc.)
*.txt	Text file	any word processor

(5) ACKNOWLEDGEMENTS

This CD was produced with the technical assistance of Sergio Merino, Garrett Thibodeaux, Jeremy Roan, and Leon Jackson. Jacoby Carter conceptualized and assembled the files on this CD and the only content on this CD he has created is this "ReadMe" file. Jacoby Carter is an ecologist at the USGS Wetland and Aquatic Research Center (WARC) and a volunteer for the LAMP.

Steve Shively made a copy of the master tape available for this project and provides the narration on the monitoring run examples. Steve is the State coordinator for LAMP and until recently worked for the LDWF.

Dr. Hardin Waddle provided the narration on the introduction and the introductions to each frog species call. Dr. Waddle is a Research Ecologist for the USGS WARC and serves as the principal investigator for the south-central region of the Amphibian Research and Monitoring Initiative (ARMI).

Jim Delahoussaye provided the documents in the "LAMP documents folder." Jim is a regional coordinator for LAMP and also works for the LA Department of Environmental Quality.

Jacoby would like to thank Dr. Susan Walls, the USGS Regional Amphibian Research Coordinator for her encouragement and input and Dr. Virginia Burkett, Forest Ecology Branch Chief at the National Wetlands Research Center (now Wetland and Aquatic Research Center) for her support of amphibian research.

Any use of trade product or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government

(6) CONTACT INFORMATION

The current LAMP state coordinator is Jeff Boundy:

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