
Mississippi Chapter Sierra Club

Golden Triangle Group

CROSSROADS

February 2002 – August 2002



SIERRA
CLUB
FOUNDED 1892

EVENTS

FEBRUARY

Sat., Feb. 23rd, 9:00 a.m. **Community Project.** Stencil and assemble 3 wooden signs for the Starkville recycling drop-off sites. Meet at Lois Connington's home, 117 Cedar Ln., Starkville. From Highway 82, go north on Old West Point Rd. Take 2nd right on Cedar Ln. Please call Lois ahead of time if you can help at 662-324-2594.

MARCH

Wed., March 6th, 7:00 p.m. **Program: Bioremediation of Creosote Contamination.** Dr. Susan Diehl from the Forest Products Laboratory at Mississippi State University will describe how bacteria and fungi are used to clean up industrial sites contaminated by pentachlorophenol and creosote. *See featured article.* Clay Lyle Building, rm 117, MSU Campus, Starkville. For more information, call Juliet Tang at 662-465-8767.

Sat., March 16th, 9:00 a.m. **Work Outing and Tour of the Black Belt Prairie in Osborn.** Clear young junipers, pick up trash, and get a tour of the Black Belt Prairie with Dr. Richard Brown. Bring gloves and saws. Take Old Highway 82 east, turn left on 16th Section Rd. At the 4-way stop, which is the intersection with Old West Point Rd., go straight. Take the first right onto the dirt road. The gate will be open. Pass the cemetery. Drive until the road dead ends at the 2nd gate by the power line cut. Park here. For more information, call Dr. Richard Brown at 662-325-2990.

APRIL

Sat., April 6th, 9:00 a.m. **Trail Work at Tombigbee National Forest.** Volunteers are needed to mark and clear the Noxubee Crest Trail. This is a new mountain bike and hiking trail. We'll be working on a 3 mile section. Bring gloves, lunch and water. Any of the following tools can also be brought: loppers,

clippers, saws, light chain saws, shovels, mattock, machete, and hammers. We'll meet at the Ranger Station. From Starkville, take Highway 12 W, at Ackerman, take a left onto Highway 15 S, go 3.2 mi and turn left at the sign for the Ranger Station. For more information, call Tony Bland at 662-263-4754.

Sat., April 20th, 6:30 a.m. – 10:30 a.m. **Yard and Plant Sale** at Lois Connington's home, 117 Cedar Ln., Starkville. Come check out the great bargains at this annual fund-raising event. *See featured article* to find out what donations are needed and when they can be dropped off. Volunteers are definitely needed to work at the sale so call Lois at 662-324-2594 to sign up. From Highway 82, go north on Old West Point Rd. Take 2nd right on Cedar Ln.

MAY

Sat., May 11th, 5:00 p.m. **Once de Mayo Potluck** at Joan and Dan Embree's home, 1364 Lake Valley Rd., Starkville. A delicious way to start the summer holidays. From Starkville, take Highway 12 west, turn right onto Old Highway 12, go 1.5 mi (stay left when New Light Rd. veers to the right), turn right onto Ridgewood, then bear left onto Lake Valley when the road forks. The Embree's driveway is the first one on the right and the number, 1364, is on the mailbox. For more information, call Joan at 662-324-0410.

AUGUST

Wed., Aug. 14th, 6:00 p.m. **Potluck and Planning** at Lois Connington's home, 117 Cedar Ln., Starkville. Bring suggestions for fall programs, outings, and newsletter articles. From Highway 82, go north on Old West Point Rd. Take 2nd right on Cedar Ln.

BIOREMEDIATION: IT'S WORKING

Industrial sites contaminated by past use of pentachlorophenol and creosote are being cleaned up by nature's own bacteria and fungi. This environmentally friendly process of using bacteria and fungi to reduce organic pollutants in soil, water, and air is called bioremediation.

Advantages of bioremediation are:

- Economical – Bioremediation can often reduce industry's environmental control costs by 20-50%.
- Safer – Bioremediation is often done on-site and does not require off-site transportation of hazardous materials through cities and towns.
- Complete disposal – Bioremediation breaks down the contaminants to non-toxic by-products.
- Continuous – Here in the Southeast bioremediation operates 24 hours a day, 7 days a week.
- High public approval – Bioremediation is a 'natural' way to clean the environment.

The Forest Products Laboratory (FPL) at Mississippi State University has been working with industry in Mississippi for over 15 years to clean-up soil and water contaminated with wood preservatives. At a site in south Mississippi, groundwater bioremediation is achieved using a pump-and-treat system. The contaminated groundwater is pumped to the surface and the water is treated in above-ground bioreactors. The bioreactors contain the bacteria that breakdown the organic pollutants. After treatment, the water is clean enough to be discharged into publicly owned treatment works.

At a site in central Mississippi, soil contaminated with creosote by-products was evaluated by FPL researchers in a year-long pilot study to determine the best amendments to enhance soil bioremediation. They found that the addition of 3% chicken manure as a nutrient source for the bacteria significantly accelerated the degradation process, requiring only 90 days to reach permitted levels versus 250 days for the non-amended soil.

To learn more about groundwater and soil remediation, come hear Dr. Susan Diehl speak on Wednesday, March 6th at 7:00 p.m. in rm 117 Clay Lyle Building, MSU Campus, Starkville.

Excerpts for this article were taken from Mississippi Forest Products Laboratory Research Advances, vol. 1 no. 2 (1992) and vol. 5, no. 2 (2000).

ONE STEP FORWARD

The workshop given last November to the Golden Triangle Group of the Sierra Club by Cynthia Goldberg from the Gulf Restoration Network on Total Maximum Daily Loads (TMDLs) gave us a headstart towards improving water quality in the Tombigbee water basin.

During the month of November, Mississippi Department of Environmental Quality (MDEQ) was soliciting public comment on the TMDL for Town Creek, a water body that was identified previously as being impaired for fecal coliform bacteria. A TMDL determines whether or not a particular water body exceeds limits set by the water quality standard. The water quality standard for the designated use of Town Creek states that "from May through October fecal coliform counts shall not exceed a geometric mean of 200 per 100 ml, nor shall more than 10 percent of samples examined during any month exceed a colony count of 400 per 100 ml, and from November through April fecal coliform counts shall not exceed a geometric mean of 2000 per 100 ml, nor shall more than 10 percent of the samples examined during any month exceed a colony count of 4000 per 100 ml."

After a complex and often obscure analysis calculating existing and allocated loads contributed by point and non-point sources to fecal coliform in Town Creek, MDEQ concludes in the TMDL that "modeling indicates that no reduction is needed in order for this water body to meet water quality standards."

Comments submitted by both EPA Region 4 and the Golden Triangle Group of the Sierra Club pointed out that this conclusion was grossly unsupported. The model only looked at monthly geometric means of fecal coliform counts and MDEQ failed to evaluate whether the model predicted that more than 10 percent of the instantaneous counts examined during the month would exceed the limits set for that particular month. Moreover, close examination of a figure of the model output seemed to show that during certain months, more than 10% of the instantaneous fecal coliform counts would indeed exceed the limit of 400 counts per 100 ml set from May through October. MDEQ's response was "MDEQ disagreed with the comment" and "MDEQ has not modified the TMDL based on the comment". Consequently, a minimally revised TMDL for Town Creek was then released to the public as the final draft. We were disheartened.

But not for long. On January 7th, Barry Royals, Chief of the Surface Water Division of MDEQ wrote a letter to EPA Region 4 explaining that they were withdrawing the TMDL for Town Creek. An excerpt from the letter follows.

"In response to the comments, MDEQ staff added a step to the review of the model output to check for compliance with the component of the fecal coliform standard that requires no more than 10% of the samples checked in a 30-day period not to exceed 400 colony counts per 100 ml.

Based on this additional review of the model output, MDEQ requests the withdrawal of this TMDL. Further reduction is needed in the model simulation to calculate the TMDL values in the report. The changes to the TMDL calculations will not be significant. MDEQ anticipates resubmitting the TMDL for approval within 30 days."

We are hopeful that the revised model for Town Creek will more accurately portray whether or not reductions in fecal coliform output from point and non-point sources will be required to meet the TMDL. Since then, however, 2 more TMDLs for the Tombigbee water basin have been submitted for public comment, Cedar Creek for fecal coliform and Joes Creek for organic enrichment/low dissolved oxygen. Both have comment deadlines of February 15th at 5:00 p.m. If you are interested in reading or making comments for either of these TMDLs, please call Juliet Tang at 662-465-8767 or John Schneider at 662-323-5277. We need all the help we can get.

NATIONAL CLUB ELECTION - THIS SPRING

In March, you will receive your National Sierra Club ballot for the Board of Directors in the mail. Please take the time to read each candidate's statement and make your choices when you cast your vote. This board sets Club policy and budgets at the national level so voting for candidates who express your views on how the Club should grow and change is both a privilege and responsibility of membership.

You can pose questions directly to candidates, read their responses, and even vote electronically, at <http://www.sierraclub.org/bod/2002election>. So please, take the time to vote this year.

ANNUAL YARD AND PLANT SALE

Clean out your house, pick up some beautiful houseplants and ornamentals, and raise funds for the Golden Triangle Group of the Sierra Club. GTSC's annual yard and plant sale will be held on Sat., April 20th from 6:30 a.m. to 10:30 a.m. at Lois Connington's house, 117 Cedar Lane, Starkville. Start cuttings from your plants now, divide up crowded perennials, and take a look around your home for those clothes you no longer wear and items you no longer use. Housewares, small appliances, furniture, tools, and nicknacks sell well. Please include only clothing in good condition, label your plants, and give conditions they prefer.

You may start bringing donated items for the sale on Sat. April 13th. Please don't bring plants before Wed. April 17th. Volunteers are needed for set up, sales, and clean up. Call Lois at 324-2594 for more information, to arrange pick up or drop off of donated items, or to volunteer.

GOLDEN TRIANGLE EXECUTIVE COMMITTEE AND COMMITTEE CHAIRS

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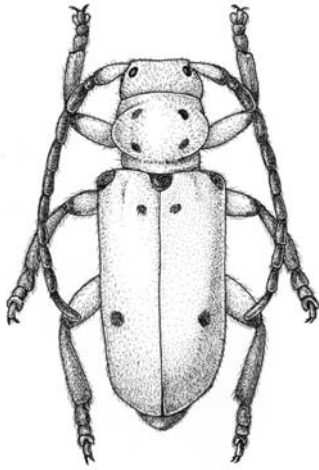
Frances Thompson* Starkville
Ex Comm

* Two year term, ends Dec. 2003

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NEWSLETTER ARTICLES

The next newsletter will be published and circulated in September. Send any suggestions, articles, or announcements to Juliet Tang (465-8767).



Tetraopes texanus, the milkweed beetle, is a common inhabitant of our Black Belt Prairie. The milkweed beetle has a beautiful red color with black spots and measures about 11-17 mm in length. It is quite obvious flying about during summer days in prairie areas. This beetle is often found on *Asclepias viridis*, the green milkweed, which is a common plant in the prairie. This species of *Tetraopes* is typically found in the mid-western plains states. The populations in the Black Belt Prairie are disjunct, that is, they are separate from the populations in the Midwest. Look for this beetle in your favorite prairie.
Joe A. MacGown (artist and entomologist)

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Crossroads