



The mission of the Mississippi Department of Environmental Quality is to safeguard the health, safety, and welfare of present and future generations of Mississippians by conserving and improving our environment and fostering wise economic growth through focused research and responsible regulation.

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Mississippi Department of Environmental Quality Environmental News

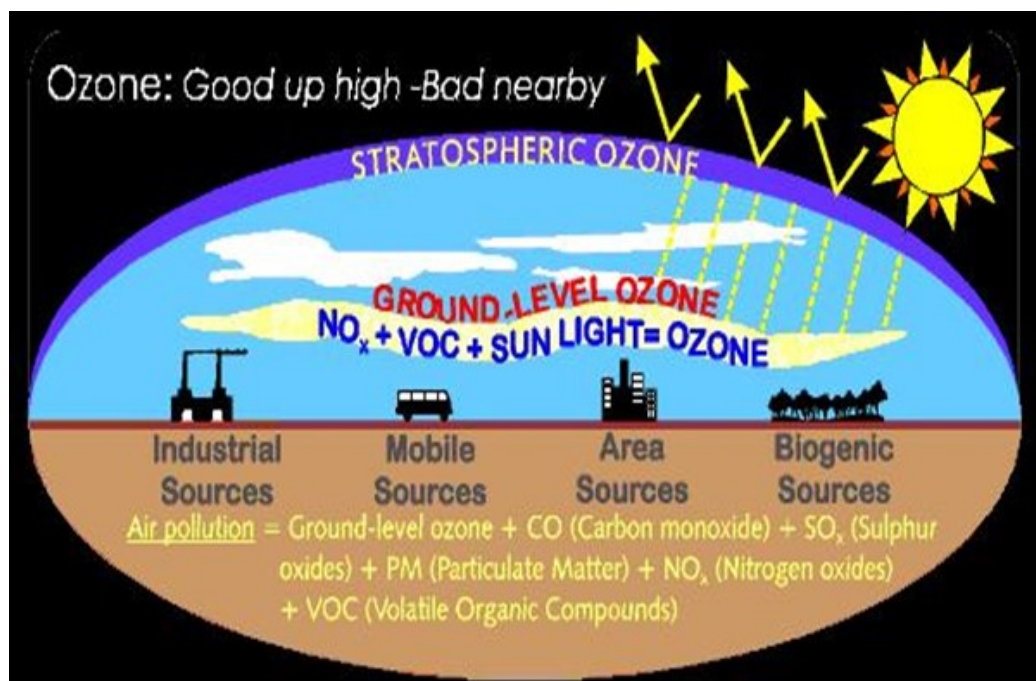
VOL. 14 ISSUE 3

MARCH 2017

Ozone Daily Forecasts Begin April 1

MDEQ issues daily ozone forecasts from April 1 to October 31 for DeSoto County, the Jackson Metro area, and the Gulf Coast. These forecasts keep residents and industries apprised of the current ozone conditions and alert them if an Air Quality Action Day is forecast. These forecasts are updated and available daily via the [MDEQ website](#), [MDEQ Twitter account](#), and also through [daily emails](#).

Air Quality Action Days are those days when ozone levels are forecast to exceed the standard, and for those days residents and industries can alter behavior to reduce air pollution. For individuals that includes carpooling, reducing idling, and postponing vehicle refueling and lawn maintenance until after 6:00 p.m. On these days sensitive groups, such as children and adults with asthma or lung disease, should reduce exposure by reducing prolonged or heavy exertion outdoors.





Good 0-50	Air quality is considered satisfactory, and air pollution poses little or no risk.
Moderate 51-100	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups 101-150	Members of sensitive groups* may experience health effects. The general public is not likely to be affected.
Unhealthy 151-200	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy 201-300	Health alert: everyone may experience more serious health effects.
Hazardous 301-500	Health warnings of emergency conditions. The entire population is more than likely to be affected.

Ground level ozone is not emitted directly into the air, but it is created by chemical reactions between oxides of nitrogen (NO_x) and volatile organic compounds (VOCs). This happens when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants and other sources chemically react in the presence of sunlight. Ozone at ground level is the main ingredient in "smog." Under the Clean Air Act, EPA establishes primary air quality standards to protect public health and secondary standards to protect public welfare that includes protecting ecosystems, plants and animals. Currently, Mississippi is meeting all of these standards, or is "in attainment," for the current ozone standard which is 70 parts per billion (ppb). In October 2015, EPA lowered the ozone standard from 75 ppb to 70 ppb.

Although Mississippi is meeting this standard, it is crucial that all areas of the state, especially DeSoto County and the Mississippi Gulf Coast, work cooperatively to maintain low ozone levels because four relatively high ozone days in a year could cause EPA to issue a "nonattainment" designation to a violating area. Any area designated as nonattainment faces potential economic development constraints, including limits to industrial growth and transportation improvement, such as restrictions on highway expansion and development.

Developing plans cooperatively to meet air quality standards is the focus for each of the Mississippi Air Quality Action Groups. The groups, initially formed by MDEQ, cities, county agencies, industries, government agencies, and public interest groups, are stakeholder-led efforts to help citizens, businesses, and industries become aware of the issue and how they can be part of the solution.

The groups are developing outreach materials and planning promotional events to encourage air pollution reduction steps. These groups are also trying to develop more efficient ways to notify residents and businesses about Air Quality Action Days.

The Mississippi Gulf Coast Air Quality Action Group and the DeSoto County Air Quality Action Group are recruiting new members. For more information, please contact Keith Head at KHead@mdeq.ms.gov or (601) 961-5577.

For more information on the Air Quality Index and Forecast or to join the forecasting email list, contact Rodney Cuevas at RCuevas@mdeq.ms.gov or (601) 961-5566.



Beach Outfalls Challenge Registration Period Extended and Prize Purse Added

The goal of the Beach Outfalls Challenge is to enhance Mississippi's ability to restore and maintain ecological integrity of priority bays and estuaries by providing measurable improvements to water quality and reducing significant sources of degradation.

Members of the public, companies, students and other entities are invited to submit their ideas to improve the design of the beach outfalls along the Mississippi Gulf Coast. A panel of judges will review all submitted ideas and will name three winners who will have their solution designed and implemented in pilot-scale demonstrations.

MDEQ announced on March 15 that a prize purse of at least \$6,000 may be awarded to the participants of the Challenge. MDEQ anticipates that the top scoring college and high school teams will share a prize purse of at least \$6,000.

"To further incentivize innovators as they develop new solutions that can directly impact water quality in the Mississippi Sound, we have worked with a number of sponsors along the coast to offer cash prizes as part of our Beach Outfalls Challenge," said Marc Wyatt, Director of MDEQ's Office of Oil Spill Restoration. "We're grateful to these sponsors, including Mississippi Power Company and Ingalls Shipbuilding, for their commitment to restoration efforts along our coastline."

Also, the registration period was extended until **5:00 p.m. CT on Friday, March 31, 2017**. Design submissions are now due by **Friday, April 14, 2017**.

To review the rules or to register, go to <http://beachoutfallschallenge.org/registration/>. For any questions, please visit www.beachoutfallschallenge.org or email the Beach Outfalls Challenge administrators at info@beachoutfallschallenge.org.



IMPORTANT DATES TO REMEMBER

MARCH 31 REGISTRATION CLOSING APRIL 14 DESIGN SUBMISSIONS DUE APRIL 15 - 19 DESIGN SUBMISSIONS REVIEWED BY MDEQ APRIL 20 - 29 DESIGN SUBMISSIONS REVIEWED BY JUDGES	MAY 1 SEMIFINALISTS ANNOUNCED MAY 16 VIDEO SUBMISSIONS DUE FOR PUBLIC VOTING MAY 19 - JUNE 4 PUBLIC VOTING PERIOD JUNE 8 ANNOUNCEMENT OF SEMIFINALISTS LATE JUNE BEACH OUTFALLS CHALLENGE SHOWCASE
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enHance Workshop: Celebrating Successes of Sustainable Manufacturing

Join us for the annual enHance Environmental Stewardship Workshop and awards luncheon in downtown Jackson sponsored by MDEQ and the Mississippi Manufacturers Association.

The workshop aims to share the principles of environmental stewardship, lean manufacturing, and waste reduction through best management practices presentations and case studies. Take part in discussions about waste reduction and network with environmental stewardship leaders!

When:

Thursday, April 20, 2017, beginning at 8:00 a.m.

Location:

Jackson Marriott
200 East Amite Street
Jackson, 39201

For more information, use this link: <http://bit.ly/2lWV7fa> or contact Chris Messemore at cmessemore@mdeq.ms.gov or 601-961-5647.



Photo from the 2016 enHance training workshop.



Being an enHance Mentor—Hol-Mac Corporation

MDEQ's enHance program recognizes environmental leaders in the state that make a commitment to address and achieve ongoing environmental improvements. This newsletter will highlight in the next several issues projects by enHance members.

This month's focus is Hol-Mac's mentorship to the Keith Huber Corporation to bring them into the enhance program. Following is their process in their own words.

enHance Certification Through Mentoring A Vendor-Customer-Vendor Relationship

As all of you may know MDEQ's enHance has many opportunities for becoming part of the program including one of the more fascinating concepts, mentoring as part of membership. This is especially rewarding when you look at it from the vendor to customer relationship.

Hol-Mac Corporation (HMC) chose as one of its projects in 2015 to mentor a company for inclusion as a Leader in the MDEQ enHance program. This would be our first time in undertaking a project of this type. It was challenging to both HMC and the company we chose to mentor. And, there were also benefits for us both.

The project we would like to highlight is the case of a new startup company located in Gulfport. A management group bought the assets and intellectual properties of an existing company and proceeded to revitalize the product line in 2013. There are many challenges to this type of operation, and they quickly came to life. The management group had an environmental study performed on the properties to investigate past issues that might create a cleanup situation prior to purchase. That gives you an understanding of the current conditions of the property from an environmental perspective.

This is where the mentoring process came in for our company. HMC located in Bay Springs, Mississippi, is a customer and vendor of the Keith Huber Corporation (KHC). Our facility sponsored and mentored KHC throughout the enHance process. KHC was still in its infancy at the time this project was chartered. It was the hope of HMC that through this process KHC would become a stronger and more environmentally friendly company. Since it was a young company many of the processes to achieve Leader status were not in place. For this reason, we chose the Associate level for the initial certification of KHC. From there we hope to achieve a higher status in the coming years.



Although the path is filled with many pitfalls when you are dealing with such a young company, none of these are beyond the ability to overcome and achieve. One thing we challenged them to do was to look around their facilities to find where the profits are hidden. This is a thought exercise to find the money in your facilities and processes that you are not currently putting in the bank. This makes the challenge fun for the people you are mentoring because you are not pointing to it for them. This makes it more of a challenge and brings into the company innovative thoughts. You can often not see what is in front of you until someone challenges you to look.

This process created many projects for small and large gains in profitability and environmental improvement that would not have been possible without going through the certification. Those include projects to recycle flux welding material and a rain water collection process. These two projects alone were substantial in lowering the cost of performing key operations at the facility. Our plan is to present the entire project at this year's annual MDEQ enHance training workshop on April 20, and to answer any question anyone might have about the rewards of mentoring. The rewards are personal as well as financial and environmentally friendly. The motto of our company is "Do It Right" which is not always easy but is always rewarding.

Flux recycling.

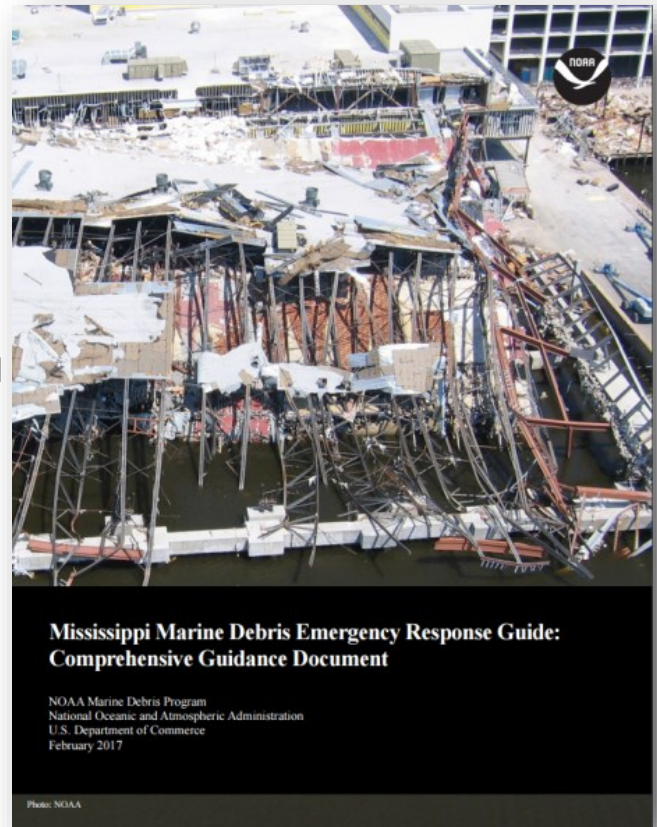


Rainwater collection for hydro testing process.



New Marine Debris Guide Available

The NOAA Marine Debris Program recently released the new Marine Debris Emergency Response document for Mississippi. This guide takes existing roles and authorities, as they relate to response to an incident that generates large amounts of debris in coastal waterways, and presents them in one guidance document for easy reference. By collaborating with local, state, and federal entities active in the region, this guide aims to facilitate a more timely and effective response to marine debris incidents in Mississippi.



MDEQ's Emergency Response Division and the Solid Waste Management programs, along with other state and federal agencies, were involved in providing state and agency-specific information to NOAA and participating in a workshop sponsored by NOAA to identify issues, agencies, response actions, and resources for development of the plan.

To find out more about the guide and to download an electronic copy, check out: <https://marinedebrisblog.wordpress.com/2017/02/22/mississippi-marine-debris-emergency-response-a-new-comprehensive-guide-for-the-state/>.

MDEQ To Host Rubbish Site Operator Training in April

MDEQ is hosting the Mississippi training course for Class I rubbish site operators on Wednesday, April 26, and Thursday, April 27, at the Millsaps Cabot Lodge on North State Street in Jackson. The course fulfills state training and testing requirements for the Class I Rubbish Site Operator Certification and updates general knowledge of Class I rubbish site regulatory and operational requirements. MDEQ will also allow currently-certified operators to attend the course as a refresher course for Continuing Education Units (CEUs).



The course is a day and a half class with a written examination on the second day. Persons who attend the course, pass the written examination, and meet the experience and education requirements may apply to MDEQ for a certificate of competency for a Class I rubbish site operator. The examination will not be required for those operators attending for CEUs only. All attendees that complete the class will receive 10 hours of CEUs that can be applied towards renewal of their certification. There is no registration cost for the training. However, all lodging, meal, and transportation costs are the responsibility of the attendees.

Course instructors will include the staff of MDEQ and FTN Associates, Ltd. Advance registration for the course is required. For additional information on the training course and details about registration, contact Mark Williams with MDEQ at 601-961-5304 or visit the MDEQ solid waste program web page at: www.deq.state.ms.us/solidwaste.



MRC Recognizes Environmental Heroes

The Mississippi Recycling Coalition (MRC) recently announced the 2016 Environmental Hero Award recipients honoring outstanding recycling programs and organizations in the state. The nominees are evaluated based on the success of their recycling efforts including promotion and outreach, the duration and extent of their recycling program, their overall environmental stewardship, and the manner in which recycling has improved community waste handling and environmental practices.

Panola County is the recipient of the “Local Government Recycler of the Year” award. Panola County’s recycling program started in 2012 with the first recycling drop-off center located in Batesville. Since that time, the program has grown to multiple recycling locations for county residents including collection sites for waste tires, e-waste, and scrap metal. The county works with local businesses, government offices, and area schools to develop recycling collection programs and works with area cities, civic organizations, and schools to conduct outreach activities. The amount of cardboard, paper, tires, plastics and metal collected from the various public sites, businesses, and school programs as part of the recycling program increased by 58 percent from 2014 to 2016.

Tupelo Middle School’s *Golden Wave Going Green Recycling Club* is the recipient of the “Educational Institution Recycler of the Year” award. In considering options to incorporate service-based learning at the school, teacher Mr. Anthony Golding determined that starting a school recycling program effort could meet that need. The school applied for and was awarded an MRC School Recycling Grant in 2016, and it formed the *Golden Wave Going Green Recycling Club* with Mrs. Cassie Swoope, the school’s SPED Self-Contained teacher, and her students. Mrs. Swoope’s class, many of whom are non-verbal and/or autistic, help collect recyclables from around the school. In addition to assisting these special needs students in learning more about recycling, their involvement with the club gives them responsibility and purpose, and provides them the opportunity to interact with the rest of the student body.

Toyota Mississippi is the recipient of the “Business and Industry Recycler of the Year” award. Toyota Mississippi includes the “reduce, reuse and recycle” hierarchy for materials management as one of the company’s environmental commitments at the plant. The company’s material management programs include the establishment of a reusable packaging system, the reuse of wood pallets, and the recycling of various materials around the plant. These recycling efforts include materials generated in the plant from the production line to those generated in the offices and breakroom areas. The plant also employs three balers to bale cardboard, plastics and office paper. In addition, the plant sets an annual waste reduction target and tracks the overall waste reduction progress to encourage employees to work to achieve this target. Over the past five years, Toyota Mississippi has recycled almost 50,000 tons of material including used batteries, toner cartridges, electronic wastes, empty containers, production scrap plastics, plastics from packaging, scrap copper, scrap aluminum, cardboard, wood waste, and scrap metal.

Columbus Air Force Base (CAFB) is the recipient of the “State and Federal Government Recycler of the Year” award for increasing waste reduction on the base from 30 percent to 55 percent through source reduction, reuse of materials, and by incorporating recycling collection and processing. To help capture more of the cardboard and paper being disposed of at the base, packaging and shipping practices were changed to reduce the amount of materials used. Pallets used in shipping are returned and reused as are aircraft shipping boxes. CAFB collects paper, cardboard, plastics, metals, electronics, batteries, and used oil for recycling. Many of these materials are sorted and baled at the recycling center on the base. In addition, glass bottles and containers are collected on the base and pulverized into sand for use as fill material in areas on the base as well as in aquariums, potted plants, and crafts. Wood waste is collected and processed into mulch. According to the base’s calculations, the recycling and reuse practices incorporated at CAFB have resulted in cost savings of one-third compared to disposal.

City of Morton is the recipient of the “New Program Recycler of the Year” award. The city started a recycling program for the first time in its history in 2013. The program began on a trial basis in an effort to gauge the interest of the residents. As part of the trial program, paper, cardboard, plastics, and metals were collected at a single drop-off location and plans were set to service the drop-off bin every two months. Due to growth in popularity among residents, the recycling bins began to reach capacity quickly and the city had to increase the frequency for servicing the bins. To help with the expansion of the recycling program, the city received an MDEQ Solid Waste Assistance Grant in 2015. Following this award, the city worked with their waste contractor to add recycling services to the city’s contract. This change allowed the city to transition from their trial recycling project to a long-term commitment to enhance and grow recycling in the community. Morton has since expanded their recycling program through an award from the Keep America Beautiful/Dr. Pepper Snapple Park Recycling Bin Grant program to locate recycling bins in Farris Park.

The Mississippi Recycling Coalition is a consortium of recycling companies, local governments, state and federal agencies, trade associations, manufacturers, and other organizations interested in promoting recycling, reuse, waste reduction, and composting in Mississippi. MDEQ serves as a primary sponsor and host organization for the MRC as part of its directive to promote and grow recycling in the state. More information can be found at www.msrecycles.org.



L-R Morton presentation: Sarah Kountouris, Board president of MRC and Director of Keep Mississippi Beautiful, Morton Mayor Greg Butler, Brenda McCaughn, Morton Chamber of Commerce, and City Clerk Dorothy Redeemer.

Becca Blair Recognized for Outstanding Recycling Efforts

The MRC also recognized one of Mississippi's outstanding young people for her efforts to increase and promote recycling. Ms. Becca Blair, of Brandon, was presented with a "Recycling Star" award at the State Capitol for her efforts to promote and grow recycling in her community. From a very young age, Becca's family instilled in her the importance of conserving natural resources and being a good steward of the environment. Along with her family, nine-year old Becca has been a faithful volunteer with the Keep the Reservoir Beautiful organization since she was only three years old.

In March 2016, Becca had the idea to incorporate her passion for the environment into her school work by conducting a project to determine how much material her neighbors were recycling. Becca started collecting recyclables from a few neighbors initially, weighing the material, and then transporting it to the public drop-off recycling facility at the local fire station. Her plan was to record the amount of recyclables collected over a one-month period. However, with the encouragement of her family and neighbors, Becca decided to keep the recycling project going. She developed a slogan "Help Me Go Green and Recycle" and advertised her "recycling services" by distributing flyers. Her initial collection route included 19 neighbors, but due to overwhelming interest she expanded to collect additional homes in her own neighborhood as well as 80 homes in her grandmother's neighborhood along with requests from other residents in the area.

Every week, rain or shine, Becca collects recyclables, records the weight, and takes the materials to the drop-off center. To date, Becca, with help from her mother (Michelle Blair) and grandmother (Kathy Joslyn), has collected over 3,000 lbs. of recyclables! Recently Becca's project also garnered national recognition with the 2016 Keep America Beautiful Individual Youth Award.



Sarah Kountouris, Board president of MRC and Director of Keep Mississippi Beautiful, presented the award to Becca Blair.



National Prescription Drug Take-Back Day

The next Prescription Drug Take-Back Day sponsored by the U.S. Drug Enforcement Administration will be April 29, 2017, nationwide, from 10 a.m. to 2 p.m.

Use this website beginning April 1 to find local collection sites:

http://www.deadiversion.usdoj.gov/drug_disposal/takeback/index.html.

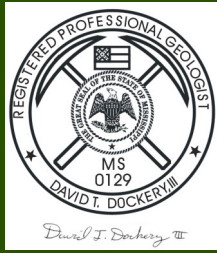
The National Prescription Drug Take-Back Day provides a safe, convenient, and responsible means of disposing of prescription drugs while also educating the general public about the potential for abuse of medications. In addition, taking advantage of this opportunity keeps prescription medication out of the household waste stream and from being flushed down toilets.



**BE RESPONSIBLE.
DON'T FLUSH YOUR MEDS.**



Collection event in Long Beach, California, from *The Signal Tribune*.



MDEQ Staff Participate in 2017 Annual Meeting of the Mississippi Academy of Sciences

David T. Dockery III, RPG, Office of Geology

MDEQ Office of Geology staff participated in the Mississippi Academy of Sciences' 81st annual meeting at the Thad Cochran Center at the University of Southern Mississippi on February 23 to 24. The Mississippi Academy of Sciences (MAS) is one of the top ten academies of sciences in the United States.

The Office of Geology, including when it was known as the Mississippi Geological Survey (MGS), has a long history of contributing to MAS's earliest meetings. In 1942, MGS geologist F. E. Vestal gave a report on "The Geology of Adams County." In the same meeting Millsaps College Professor Dr. J. M. Sullivan gave accounts of: a *Zygorhiza kochii* (fossil whale) found in 1933, a new fossil alcyonarian coral *Eogorgonia sullivanii* Hickson, a new fossil helmet shell *Galeodea millsapsi* Sullivan and Gardner, and the first titanotherium fossil found east of the Mississippi River *Notiotitanops mississippiensis* Gazin and Sullivan. In 1984, MGS author names on MAS abstracts included David Booth, Darrel Schmitz, William Gilliland, Alvin Bicker, Michael Seal, Curtis Stover, David Dockery, and former State Geologist Fred Mellen.

At this year's annual meeting, MDEQ's James Starnes presented a paper on the contributions of new fossil finds to geologic mapping in southern Mississippi. Notable among these finds are (oldest to youngest): the updip limit of the Late Oligocene *Heterostegina* Limestone found in test holes and cores in the upper Catahoula Formation of Covington County, the Middle Miocene short-legged rhinoceros *Teleoceras medicomutum* in the Hattiesburg Formation of Franklin County, and a Late Miocene neohipparion horse in the Pascagoula Formation of Perry County.



Cannon bone (leg bone) of a Late Miocene neohipparion horse above the much larger cannon bone of a modern horse. Photo courtesy of George Phillips.

Top: Tyler Berry presented the award for best undergraduate presentation to Brooks Rosandich of Millsaps College.

Bottom: Kaitlin Voll of Ole Miss received the best graduate presentation award.

Tyler Berry, also of MDEQ's Office of Geology, was Chair of the Geology and Geography Division, which included papers from faculty and students representing the University of Southern Mississippi (three presentations), Millsaps College (four), Mississippi State University (four), the University of Mississippi (five), and MDEQ's Office of Geology (four). Tyler also presented MAS awards for the Division's best undergraduate and graduate student presentations.



Top: Forensic geology students at Tulane University's Madison campus: Wesley Perry and Kimberly Hawkins at the Office of Geology booth.

Bottom: MDEQ's Barbara Yassin with her daughter Nadia working the booth.

Geology Outreach — Gem and Mineral Show

The 58th Annual Gem and Mineral Show, sponsored by the Mississippi Gem and Mineral Society, drew large crowds on February 25th and 26th at the Trade Mart in Jackson. MDEQ's Office of Geology had a booth at the event as did the University of Mississippi, Mississippi State University, and the University of Southern Mississippi.

The Gem and Mineral Show is always a good opportunity to meet the public, answer questions, identify rocks and fossils, sell office literature, and a time to interest students and families in the state's natural history.



MDEQ geologist James Starnes helping young people identify what they brought.

Geology Outreach — Fossil Road Show

MDEQ geologists also participated in the 14th Annual Fossil Road Show on March 4 at the Mississippi Museum of Natural Science. The show provides an excellent opportunity for the public to bring their “finds” to be identified. MDEQ staff look forward to this event every year to interact with the public and the expectation of some unusual Mississippi fossils.





MDEQ Environmental Action Links

- Draft permits currently at public notice, <http://opc.deq.state.ms.us/publicnotice.aspx>
- Environmental Permits Division Scheduled Public Hearings, <http://opc.deq.state.ms.us/publichearingheader.aspx>
- Geology Permit Application Public Notice, http://opc.deq.state.ms.us/geology_public_notice.aspx
- Permits and certificates issued in the last 90 days, http://opc.deq.state.ms.us/report_permits.aspx
- General permit coverages issued in the last 90 days, http://opc.deq.state.ms.us/report_gnp_issued.aspx
- Notices of Intent for coverage under a Statewide General permit received by the Environmental Permits Division, http://opc.deq.state.ms.us/report_gnp_notice.aspx
- List of the 401 Water Quality Certifications currently at public notice, http://opc.deq.state.ms.us/report_wqc_public_notice.aspx
- List of the compliance inspections recently conducted, http://opc.deq.state.ms.us/report_eced_tasks.aspx
- Orders issued by the Mississippi Commission on Environmental Quality, http://opc.deq.state.ms.us/report_orders.aspx

Connect with MDEQ



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Picture of the Month

Butterfly leaving
its cocoon, Brook-
lyn, Mississippi.

By Lindsey Tor-
torich, Office of
Administrative
Services.

