

Wetumpka Impact Crater Newsletter

Twenty-third edition / December 2023

The year 2023 was another eventful one for Wetumpka impact-crater research. In this annual newsletter, I will recap the events of the year and tell you some of what we have to look forward to in 2024 and beyond.

First, let me thank each of you for your support of Wetumpka impact-crater research! The many acts of kindness and support received during 2023 and prior years have made possible many aspects of our work at Wetumpka. We are also especially grateful to the many landowners in the Wetumpka area who have been so generous and allowed us to work on their property or visit their property for field trips. This is our 27th year working at the crater.

During 2023, our work at the crater was supported in part by some very generous contributions to the Wetumpka Impact Crater Fund given by local landowners and a noteworthy grant from the Poarch Creek Endowment Committee. Also this year, production of “*A guide to the interpretive signage at Wetumpka impact crater, Elmore County, Alabama*” was written thanks to a small grant from the Meteoritical Society (<https://meteoritical.org/news/wetumpka-impact-crater-guidebook>). We were most grateful for this support, which meant a lot to us during the continued absence of federal funding. In order to try to bridge the gap in federal funding, during 2023 I submitted proposals for a grant-funded project at Wetumpka to the NASA Solar Systems Working Division and the National Geographic Society. Federal funding is very hard to obtain these days (less than 5% of all proposals to NASA are funded), so another agency like NGS, even though they have lower dollar limits than NASA, seem to be a good potential funding source. Unfortunately, these proposals were not funded and we are trying again this year (2024) with new approaches. Thanks to some geology alumni at Auburn, we now have an estimate for the cost of seismic studies at Wetumpka, which is about \$300,000. We will try to obtain funding for that work during the coming year. If anyone reading this newsletter has any ideas about private sources for funding of work like this, kindly let me know.

As you may know, the March 2023 crater tours by the Crater Commission and the city of Wetumpka were held and were a great success! As in all previous years (1999-2020; 2023), these tours and associated activities were assisted by my graduate students, who accompany attendees as guides in the tour vans. This will again be so in 2024, and the students expressed how much they are looking forward to the tours in a few weeks (February 23-23, 2024). My annual lecture will be on the evening of February 22. Over the years, the Crater Commission has done an outstanding job of keeping all interested parties informed of crater-related activities via their web page at www.wetumpkaimpactcratercommission.org.

I am pleased to report that the new Wetumpka Crater Discovery Center is being set up in a storefront in downtown Wetumpka. I have provided some graphics and samples for the new center, which should be open very soon, if not already. I would encourage all newsletter readers to see this new center, which was set up beautifully by a dedicated group of people with the city, the commission, and other volunteers. I will not try to list names here because I will probably overlook someone, but if you helped with the center please know that your efforts in establishing this center are very much appreciated by all of us. I should mention also that the ‘alleyway’ in downtown Wetumpka now has some amazing graphic panels depicting the development of

Wetumpka impact crater from 85 million years ago to today. This display is really worth seeing by all!!

The year 2023 was the 25th anniversary of the initial core drilling at Wetumpka impact crater, I perhaps a few comments about this are in order. Thanks to my friend, the late Tony Neathery, we obtained funding from Vulcan Materials Company of Calera, Alabama (actually an in-kind gift), and the first two core holes ever drilled at Wetumpka were completed during the summer of 1998. These core holes on the Schroder's and Reeves' properties on Buck Ridge Road yielded the samples we needed to establish Wetumpka (in a peer-reviewed, scientific paper) as the 157th known impact crater on Earth. Since 1998, our efforts at AU have produced 9 major scientific papers in peer-reviewed journals and monographs, including the 2002 paper that established Wetumpka as a bona fide impact crater, plus five other published conference proceedings manuscripts published. Two guidebooks on Wetumpka were co-authored by us, and since 1998 there have been 87 conference presentations on Wetumpka, which were presented by either by me or my students. Some far off places where we have given conference papers about Wetumpka include Norway, Sweden, Spain, Morocco, South Africa, Brazil, and Japan. Seven AU students have earned Master's degrees (plus one Ph.D.) studying Wetumpka impact crater with me. During 2007, interest in Wetumpka brought 40 scientists from 19 countries to a GSA International Field Forum there, which was organized by me. Wetumpka has been a great well-spring of information about asteroid impacts into ancient oceans, like the shallow Gulf of Mexico, which covered southern Alabama, including the impact area, about 85 million years ago. Wetumpka is now known and recognized globally.

I have written two short historical reviews about Wetumpka, part 1 covers 1997-1998 and part 2 covers 1998-2002. If you would like copies of these historical reviews or copies of any of our scientific papers on Wetumpka, please contact me by email.

Lately, we have been focusing our attention on samples already in the lab and on field work focused on collecting more of the impact-affected quartz boulders that occur in several places inside the crater. This work has progressed a great deal, and we are moving along with a manuscript for publication about our findings. There should be more to report on this work in the next newsletter. I also plan to start a book shortly about Wetumpka, the research history and findings, and other related topics. I have finished about six chapters so far.

Over the years, Wetumpka impact crater has gained a lot of attention and rarely does a week go by that I do not hear from someone via email asking for information or asking me questions. Some of these inquiries come from distant parts of the world and others from close to home. It is amazing how many people around the U.S. - and the world - know about Wetumpka.

Appeal for funding – As in the past, we are always appreciative of your gifts toward our research. Gifts in any amount can be sent “in care of” me at the address below. Please make the check to “Auburn University” and write “gift for WICF” in the lower line. As we have zero dollars in our research account, any contribution at this point would be much appreciated.

If you know someone who would enjoy having this newsletter, please forward this or send me their e-mail. Again, I want to again thank all of you who have so loyally helped us over the years. Working at Wetumpka since 1997 has been a rare privilege for me and my students and colleagues. Best wishes for a very happy and healthy 2024!

David T. King, Jr., Professor of Geology < kingdat@auburn.edu; <http://www.auburn.edu/~kingdat> >
Dept. of Geosciences, 2050 Memorial Coliseum, Auburn University, Auburn, AL 36849-5305