Nature's rings **abound**

ello from the world of science and won-

der. I wish you all a very sciency summer. There is so much to see and investigate and wonder at in this part of the world. The last column

I wrote was on

agates form and

how Lake Superior

how they got all the way

to Omaha, Neb. While in

or agates, my car LOOK AT THAT! got nailed with golf-ball-sized hail while parked outside my son's house. After checking out my newly dimpled car, I picked up a few hailstones and brought them inside for a dissec-

Omaha last month, I not

only found Lake Superi-

tion. If you cut a hailstone in half, and if the light

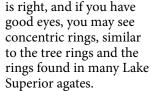


Glen

Sorenson

Otolith

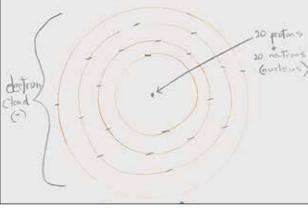
An otolith is a calcium-laden stone that grows in fish for the life of that fish. The word "otolith" literally means 'ear stone." They grow a winter and summer layer every year and help fish with balance and hearing. Otoliths are used to age fish. How old is this fish's otolith?



It got me thinking about all the other concentric rings and spheres found all around us, and the stories they tell. Besides tree rings, agate rings, and hailstone rings, I thought of fairy rings, the rings of Saturn, rings of electrons in an atom, fish otoliths,

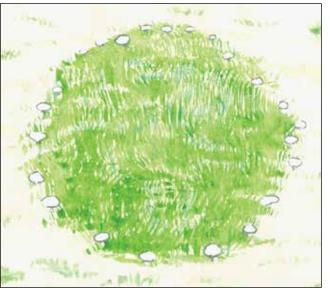
spider webs, ripples on a pond, even our own solar system.

Below are some simple and sometimes exaggerated drawings I did of a few of these ring stories. Look for rings in your world. If you can photograph them, send them to the Pine Knot News and they may get shared with the readers. Keep on observing, and you keep on learning.



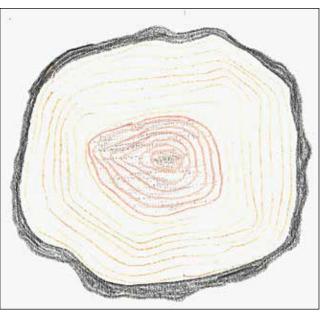
Calcium atoms

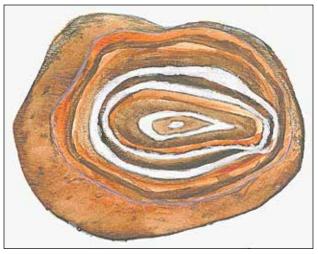
An atom has a positive nucleus and a cloud of negative electrons surrounding that nucleus. They have a system of arranging themselves, including concentric spheres. The further an electron is from the nucleus, the more energy it has and is more likely to be part of a chemical reaction.



Fairy rings

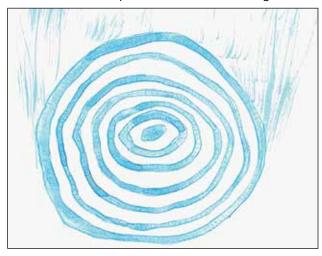
This ring of mushrooms (made of a type of meadow mushroom) expands every year away from its inoculation point in the center. This ring expands as it consumes organic matter in the soil, turning it into nitrogen.





Agate

Lake Superior agates are formed from the outside in, toward the center. The different colors represent different concentrations of iron in the solution that was in the hollow sphere that became the agate.



Waxworm trip leads to a tall tale

he week started with a real emergency around the Baker

household. Phoenix, our resident gecko, was

out of food. Normally, we would run to Duluth and pick him up some crickets or tasty mealworms. It was late into the evening before we figured out he Baker needed a fresh supply of protein.

The last light of day had just faded when I jumped into the Suburban. I wasn't too thrilled with this mission, but somewhere, way down the list of parental and husbandly duties, was making sure the gecko was fed. My solution? A Kwik Trip run. In a pinch, waxworms from the Walt's Crawlers

refrigerator would have to suffice.

I swung into that between the parking lot, the four my headlights darting over people in my the gas pumps. immediate In that second, my mind regisvicinity, tered the figure of a towering man pumping and *I* were the gas. I parked. I only two who stared intently into my side knew who mirror. My heart raced. *Kevin McHale* I jumped out and took a good look.

Sure enough, hard to mistake him, even from a distance. Kevin McHale.

My basketball career peaked in sixth grade. Even using the word "peaked" may be overselling reality. I was a fan of the game. I grew up watching the great battles between the Lakers and the Celtics. Magic Johnson, James Worthy, and Kareem Abdul-Jabbar vs. Larry Bird, Robert Parish, and Minnesota's own Kevin McHale.

Now, McHale stood just across the parking lot. I made the decision almost

ways ask the same question of me. "You going fishing?" Of course, 95 percent of the time, especially in the summer, they are right.

OUTDOORS I was met with a strange look, espe-Bret

I realized in

that instant

was.

cially since all I was buying was bait when I responded: "Not exactly." A quick glance

over my shoulder and I realized McHale was two back of me in line.

The silence of the moment was broken by the gentlemen behind me: "Boy, you're really tall," he blurted out. My first reaction was to chuckle to myself. "How tall are you?" the same man asked. McHale politely let him know he was 6-feet, 10 inches tall.

"You ever played basketball?"

was question number two. I realized in that instant that between the four people in my immediate vicinity, Kevin McHale and I were the only Kevin McHale two who knew who Kevin McHale was. Again, McHale was polite. "I played a little ball," he answered.

> "Were you any good?" was the last question I stuck around for.

I pivoted, waxworms in hand, and half-nodded and pointed towards McHale, "One of the best," would be the only four words I could muster. The three-time NBA Hall of Famer and three-time NBA champion nodded back at me, accepting my compliment.

Returning home I was excited to tell the story of my encounter. As I expected, it was a mixed reaction. Some thought it was awesome, and others thought that waxworms were too make a habit of feeding them to Phoenix. To summarize: 1. Geckos like wax worms. At least ones named Phoenix. 2. Geckos cannot live on wax worms alone. 3. Kevin McHale is tall. Bret Baker is a lifetime resident of Cloquet. He is a proud husband, father, educator and outdoorsman. Bret began guiding fishing trips when he was 16 years old. Today, in his 40s, his passion is to introduce people to the tremendous outdoor adventures avail-

able in the region.

Tree rings

These are rings added every year to the outside of a tree. How old is this tree?

Hailstone

The layers in this drawing have exaggerated colors just for demonstration. The white layers represent ice that was formed high in the cloud under supercooled conditions, while the blue (clear ice) layers represent ice formed at less-cold temperatures lower in the cloud. The multiple layers shows that this hailstone was thrown up and down within the cloud about six times before it fell to the ground.

immediately that I wouldn't fatty, and we shouldn't pester him. I had already calmed down and realized it was a cool encounter my kids may or may not be excited about. I refocused on the mission at hand and headed for the waxworms. I grabbed a package of 36 of Walt's finest waxworms and headed for the checkout. In that time McHale had made his way inside the Kwik Trip and was back in the coffee section. I hadn't heard or seen anybody approach him or acknowledge his presence. I slid my waxworms onto the counter. The ladies at the Kwik Trip almost al-