How to Open a Mazon Creek Concretion

You cannot tell what may be in a concretion from looking at the outside, although some collectors with years of practice may be able to make a reasonable guess. In order to see the fossil, you need to break open the concretion. There are a couple of ways to do this.

Some people use a rock hammer to open concretions. Although this method may crack it open quickly, it frequently causes the concretion to break in a way that does not expose the entire fossil.

The best method to open concretions is to alternately freeze and thaw them. Put the concretions in a bucket of water and allow them to soak for several days so the water thoroughly penetrates the concretion. Then, place the bucket of concretions in a freezer. When the water has completely frozen, remove the bucket from the freezer and allow the water to thaw completely. Repeat this freeze-thaw cycle as many times as necessary. Periodically, after thawing, check for any concretions that may have opened and remove them. Concretions that haven’t opened can be tapped with a hammer or on a hard surface to see if they will split apart. If you have limited freezer space, use a tray, baking pan, or another suitable container deep enough to thoroughly submerge the concretions.

After about 10 cycles, allow the concretions to dry completely. Then repeat the whole process. Most concretions containing fossils will open in about 25 cycles or less. Some concretions may require 50 or more cycles before splitting occurs. Of course, in desperation, you can always go back to hitting the concretions with your hammer.

Pictured are three examples of concretions to give you an idea of what to look for. Remember, in the Mazonia-Braidwood area, you are not allowed to dig. If a concretion is exposed, you may pick it up. If it is only partially exposed, you make remove it from the surrounding soil. Digging into the ground or hillsides to expose hidden concretions is strictly forbidden by the Illinois DNR. Collecting is permitted from March 1st through September 30th.