

Pennsylvanian Age Fossils of Northeastern Illinois, USA 1

Fossil Shark Egg Cases of the Mazon Creek Region

The Field Museum

Produced by: Jack Wittry, Collection Associate, with assistance of Rosalba Rodriguez, Science and Education Dept., The Field Museum. Photos © Jack Wittry; [jwittry@fieldmuseum.org] © The Field Museum, Chicago, IL 60605 USA. Scale bar equals 1 cm. [fieldguides.fieldmuseum.org] [978] 2/2018

Around 307 mya northeastern Illinois was a tropical swamp at the edge of a brackish sea. And was a nursery for the largest and most diverse occurrence of fossil shark egg capsules in the world.



Identification is based mostly on band count, and band pattern. Also the relative dimensions of the various parts should be considered if possible. Overall size is not a diagnostic feature. Larger sharks laid large eggs. The difference can be two to three times larger than a small example.

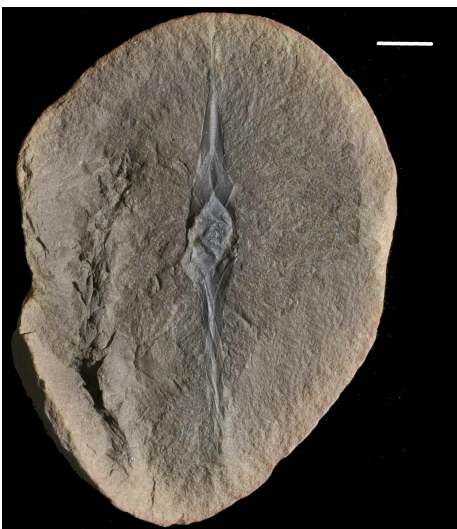
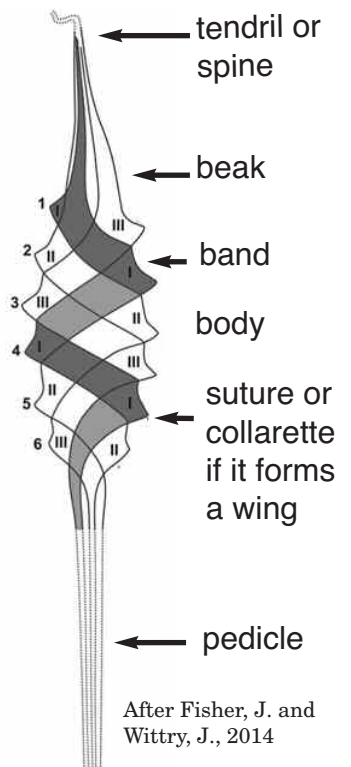
Fayolia ellipticus: The bands are equal in width, and spiral at a low angle. The body lacks a beak and pedicle. Very rare.



Palaeoxyris prendeli



Palaeoxyris prendeli: Generally it has no visible bands, when visible they are very weak with a repeating pattern of small-broad-medium/broad-broad, which crosses the body mid-section at a 45° angle. A distorted area is often seen just below the middle of the body. Suture lines are often only visible on the



Palaeoxyris prendeli

pedicle tip. The pedicles are long and narrow. Lesquereux described *P. prendeli* as often appearing like a “empty wrinkled bag.” Easily this species is the most common fossil shark egg case found in North America. And by far the most frequently found egg case in the Mazon Creek biota.

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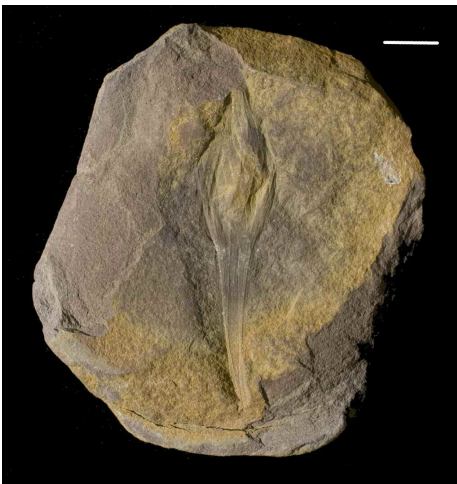
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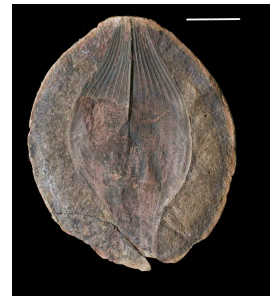
Palaeoxyris carbonaria: Band count is 10 or more, and are equal in width. They cross the body mid-section at a 30° angle and form a fine mesh. The beak is elongated and nearly equal in length to body. Collarettes are visible in well preserved specimens. Rare.



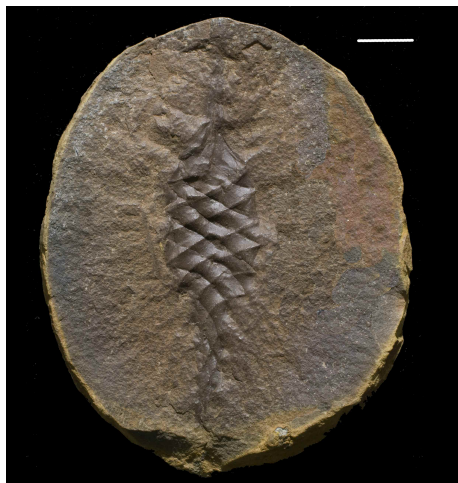
Palaeoxyris helicteroides: The band count is 8. Bands are well marked and form a repeating pattern of small-broad, which crosses the body mid-section at a 45° angle. Rare.



Vetacapsula johnsoni: Spindle-shaped, with a large number of very fine, closely placed, parallel ribs, which run the length of the capsule. A median ridge is also present. Very rare.



Vetacapsula cooperi: Bulb-shaped, with a large number of straight longitudinal ribs which run the length of the capsule. A median ridge is present. Very rare.



Palaeoxyris warei: The band count is 4. They are of equal width, recessed in furrows, and cross body mid-section at a 30° angle. The sutures are promi-

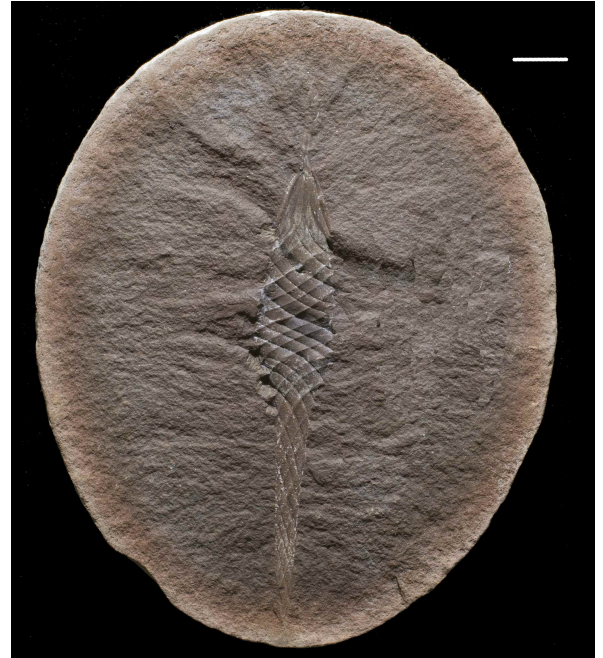
nent and are frequently seen slightly separated. The second most commonly found egg case at Mazon Creek.

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Palaeoxyris lewisi: The number of bands is 10. They are in a repeating pattern of broad-broad-small. Bands cross the body mid-section at a 30° angle. The third most commonly found egg case at Mazon Creek.

Palaeoxyris multiplicatum: Unlike other species of egg cases, the outer egg cover is rigid. When compressed it shatters into broken elongated fragments. There are no known

complete examples of the band pattern. Other than the shattered appearance it has two features that help separate it from the other egg cases. The sutures abruptly change angle as

they enter the body from the beak. And they are nearly straight as they run down the pedicle. Rare.