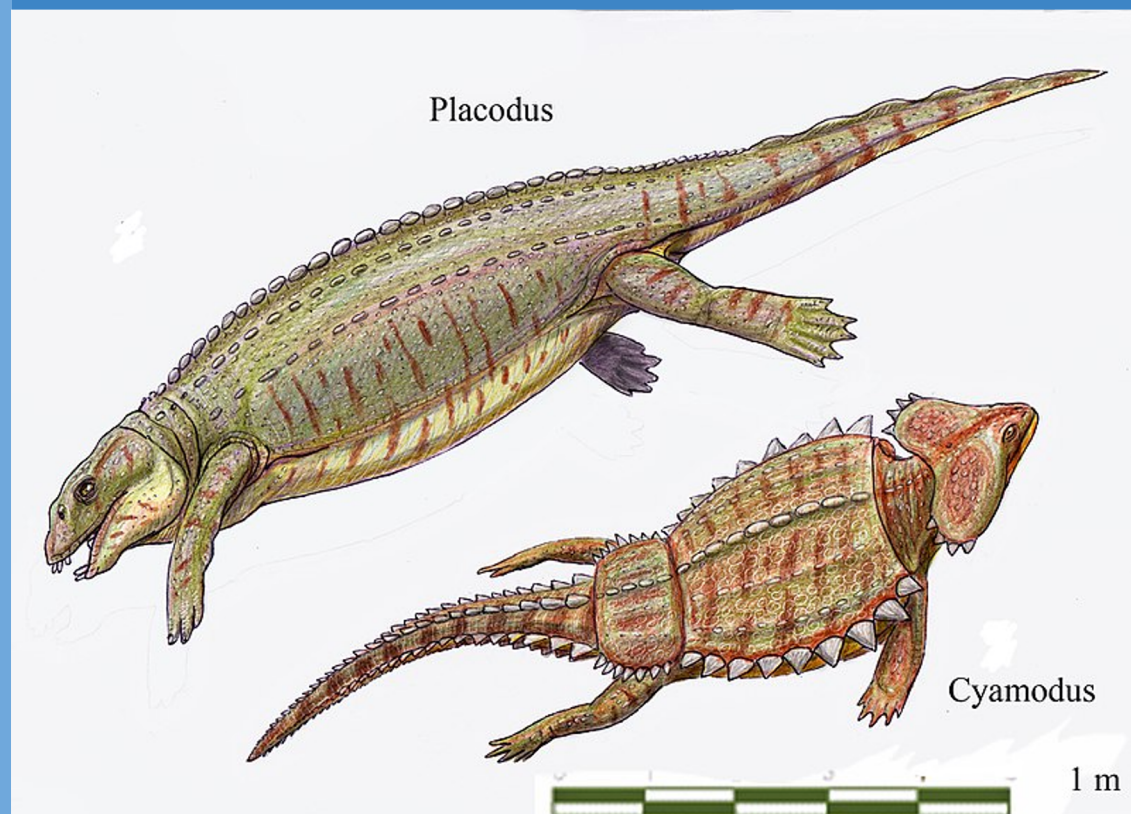


Mesozoic Marine Revolution

Cause of the Mesozoic Marine Revolution:

- Some predators' eating behavior changed to durophagous predation
- The organisms with shells developed defense strategies against durophagous predators.



This is Triassic Placodont, a type of durophagous predator

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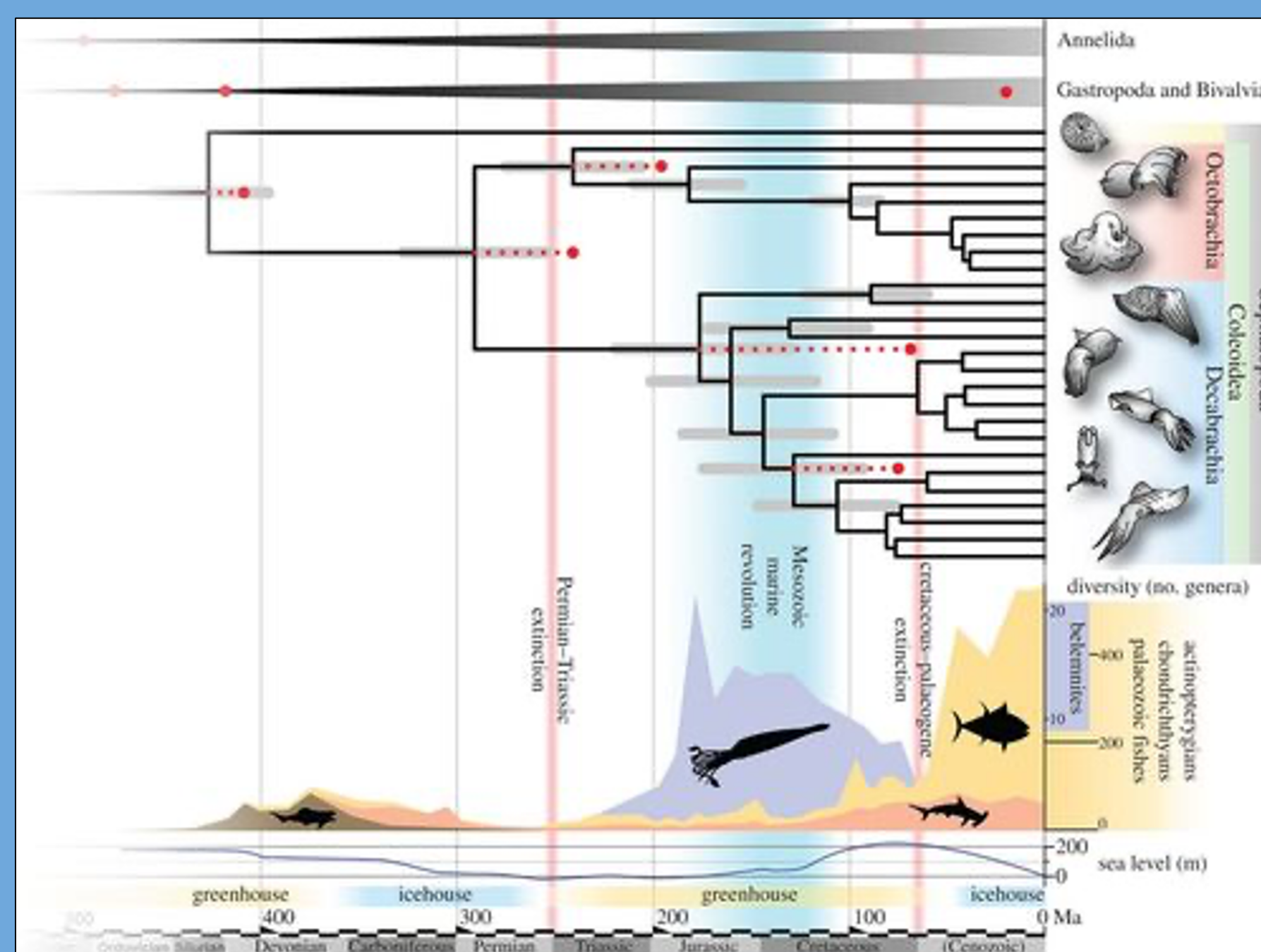


© Hans Hillewaert

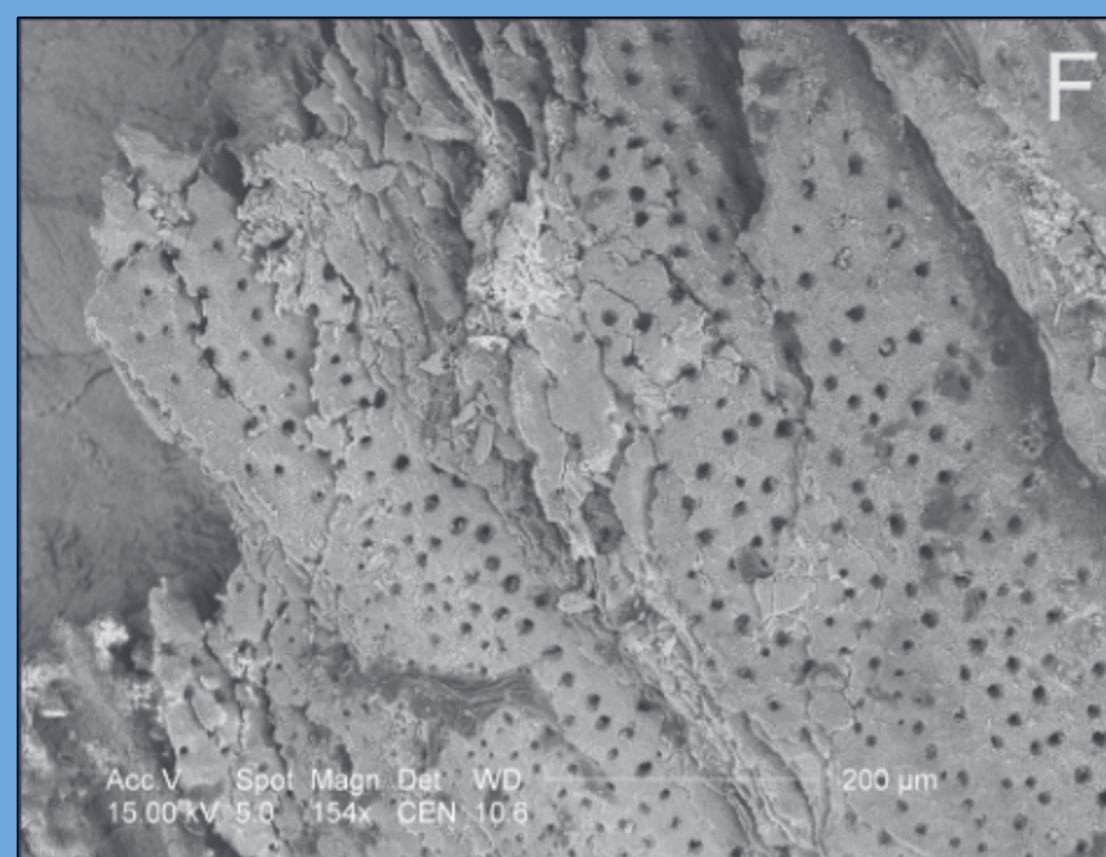


The picture on the left is a type of gastropods, they were heavily preyed upon. The picture on the right is a Bivalve fossil, they adapted to the transition pretty well.

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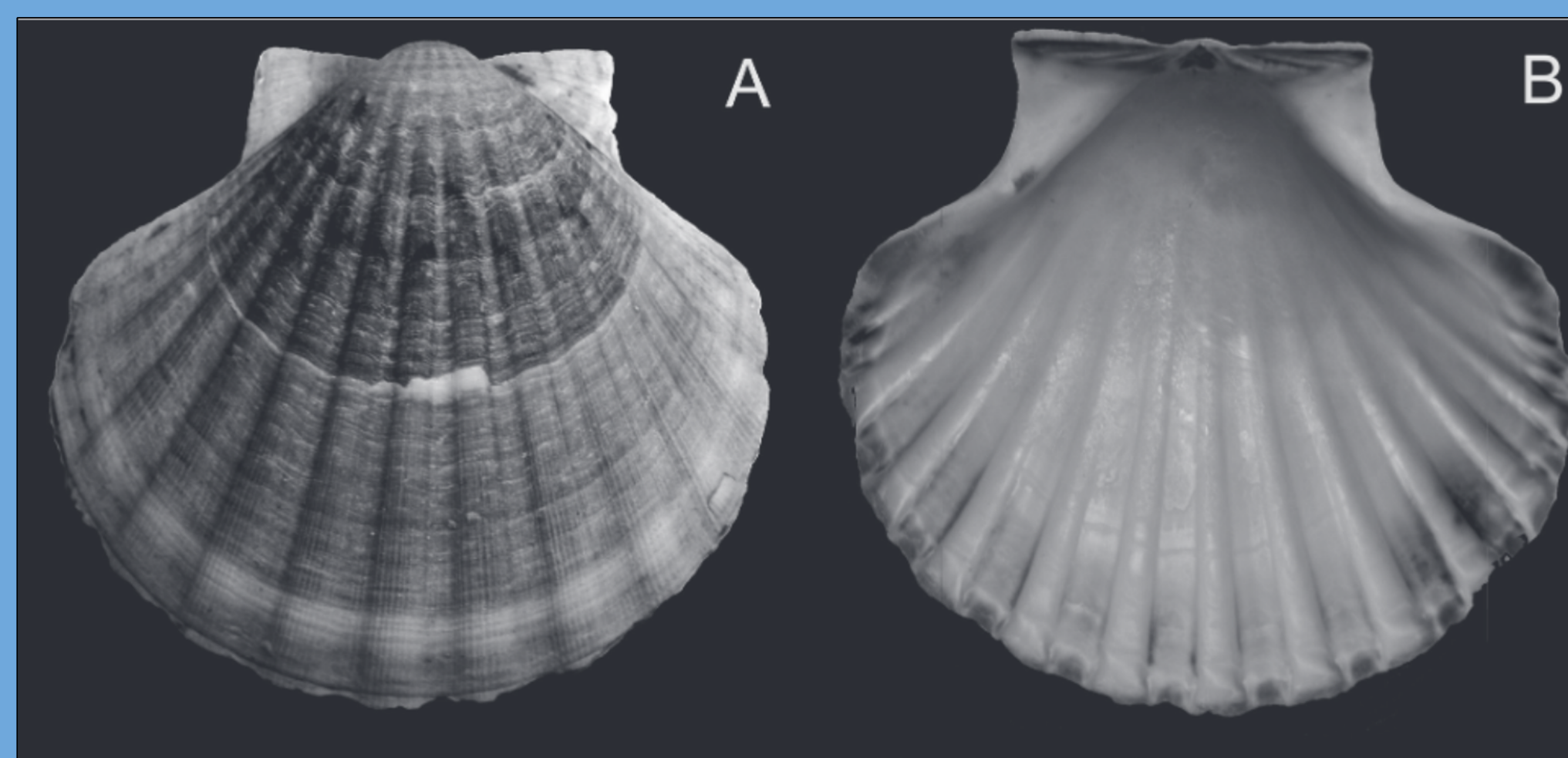


Shown to the left is a chronogram showing when certain cephalopod branches came to be and the rise of the diversification of cephalopods in the Mesozoic marine revolution.



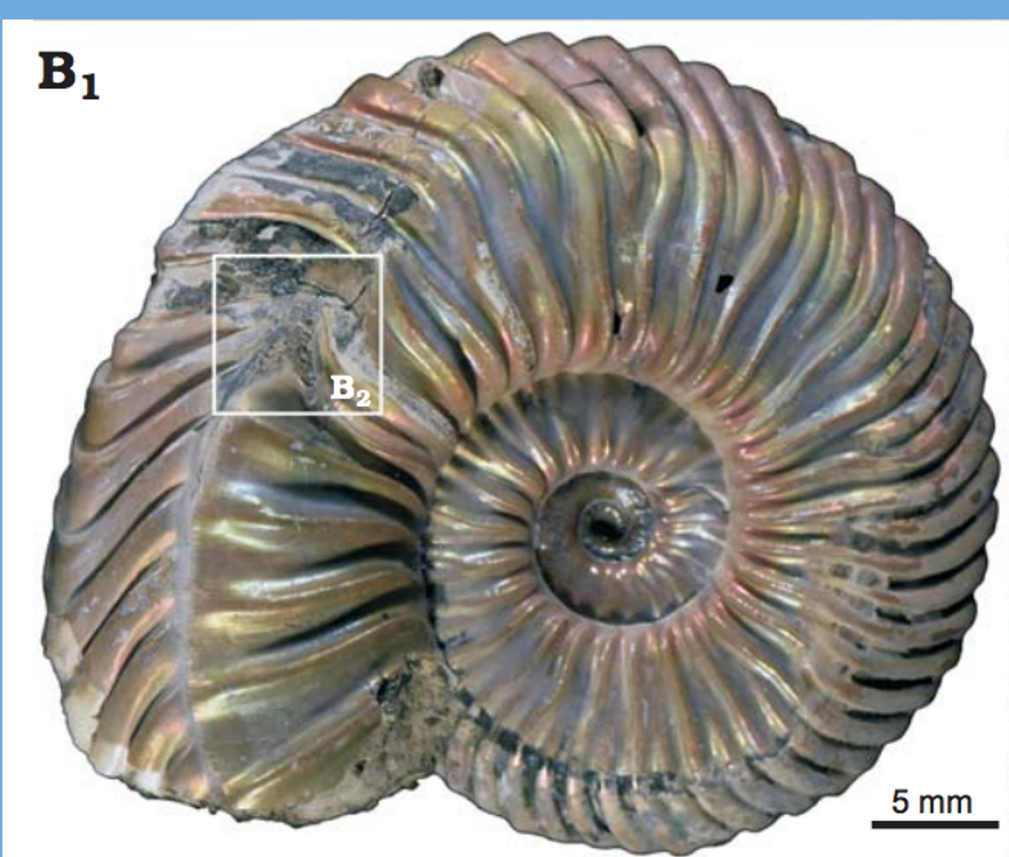
P. maximus porous structure

A. An image of *Pecten maximus* porous microstructure which made it weigh less a prerequisite for swimming ₁



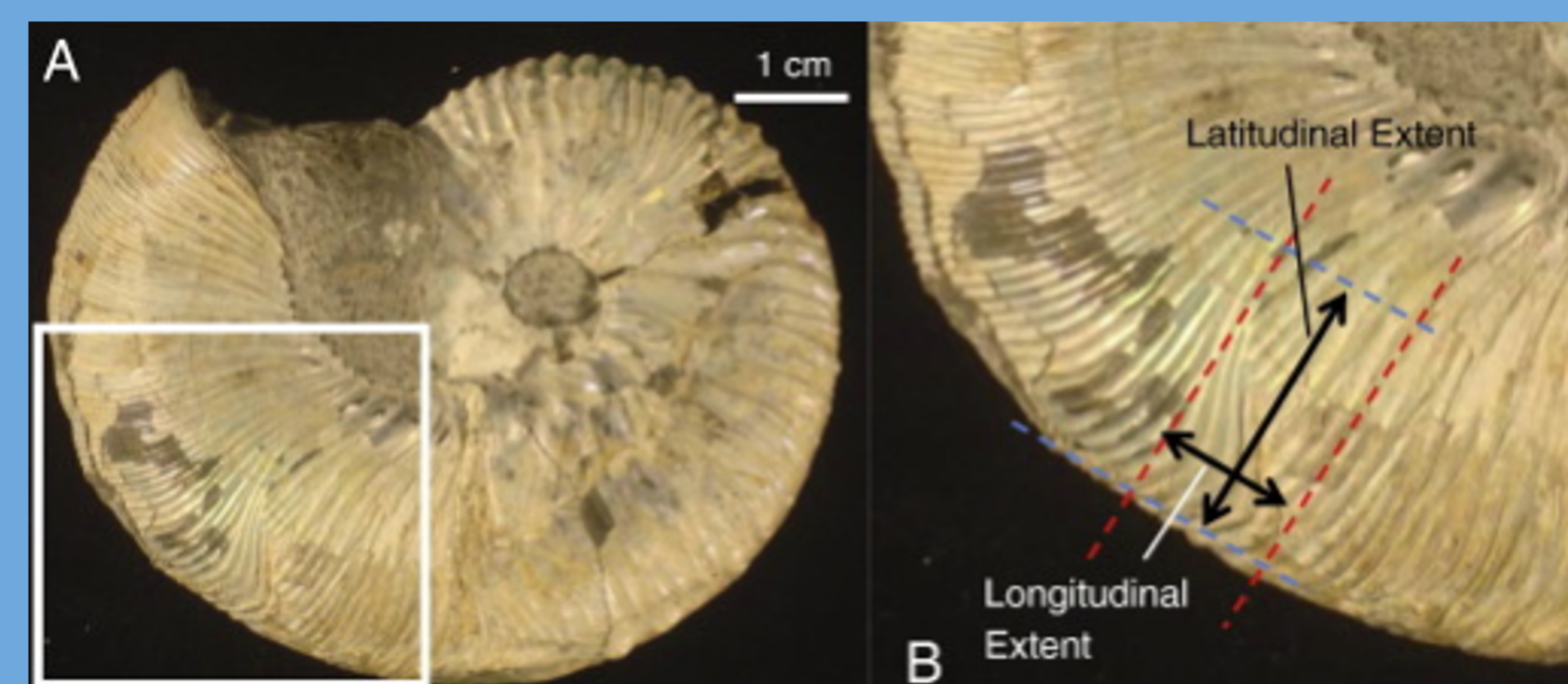
P. maximus elaborate lamellar structure

B. An image of *Pecten maximus*, a scallop highly developed microstructure ₁



On the left shows the shells adaptive features like ribs across *Quenstedtoceras sp.* shell from the Jurassic period

C. Ornamental features of an ammonite. Ribs across the shell of Late Callovian ammonite *Quenstedtoceras sp.* (Hoffman, 2019) ₂



D. An image of *Jeletzkytes dorfi* repair marks from predation. ₃

The repair marks of *J. dorfi*

GEOL 204 The Fossil Record

Spring 2020 Section 0105

Caylee Bergreen, Max Fitch, Kate Quiroga, & Claire Zhuang