

**Late Paleocene (P4, NP6:
Selandian/Thanetian Stage, ~59 Ma
Oleneothis Zone to ~57 Ma) Vincentown Fm.,
New Egypt, NJ: Survival and
Diversification (after the Bollide Impact at
the K-T Boundary) on the Mid-outer to Mid-
inner Continental Shelf during a
Regressive SL Change**



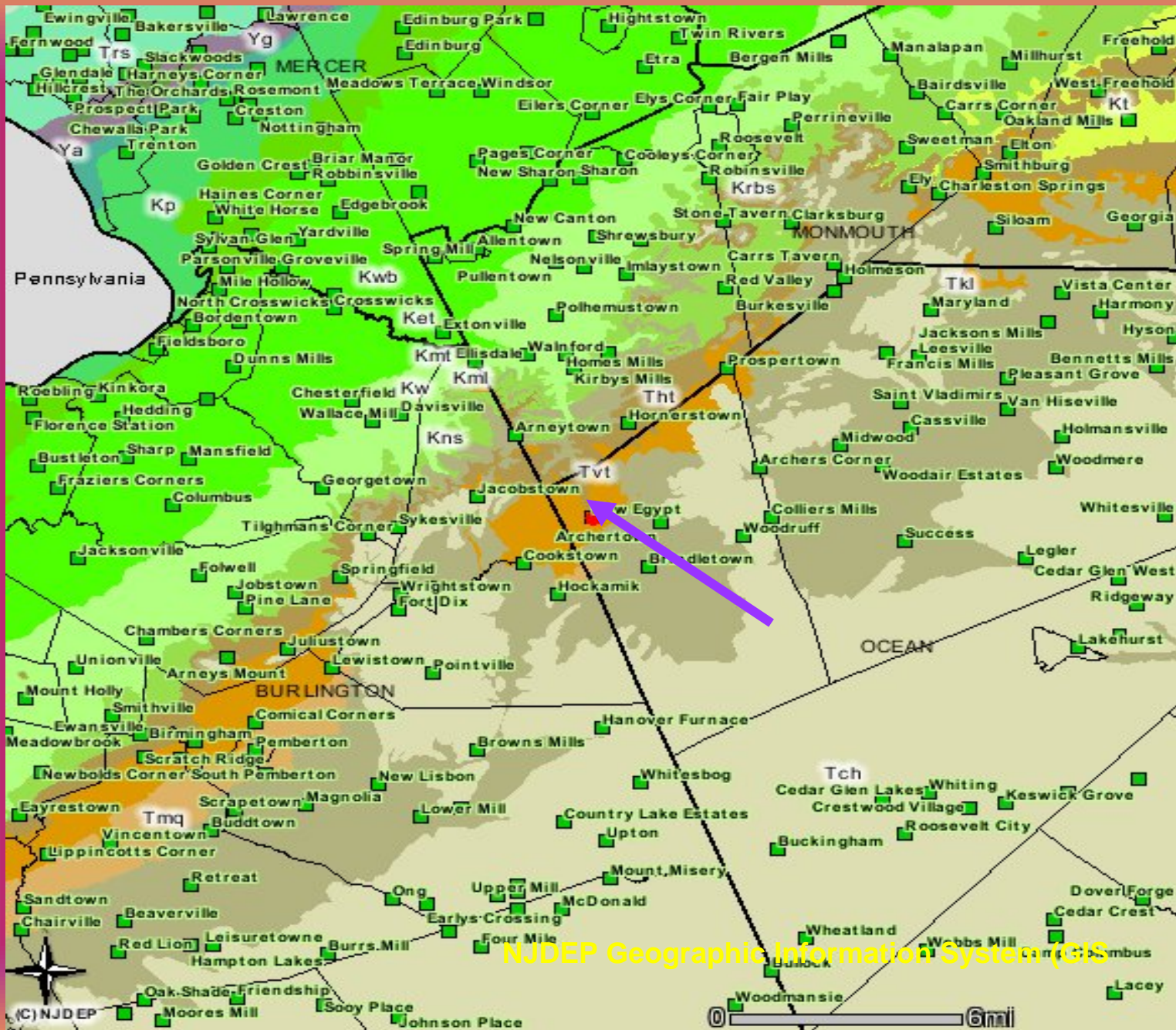
John E. B. Baker



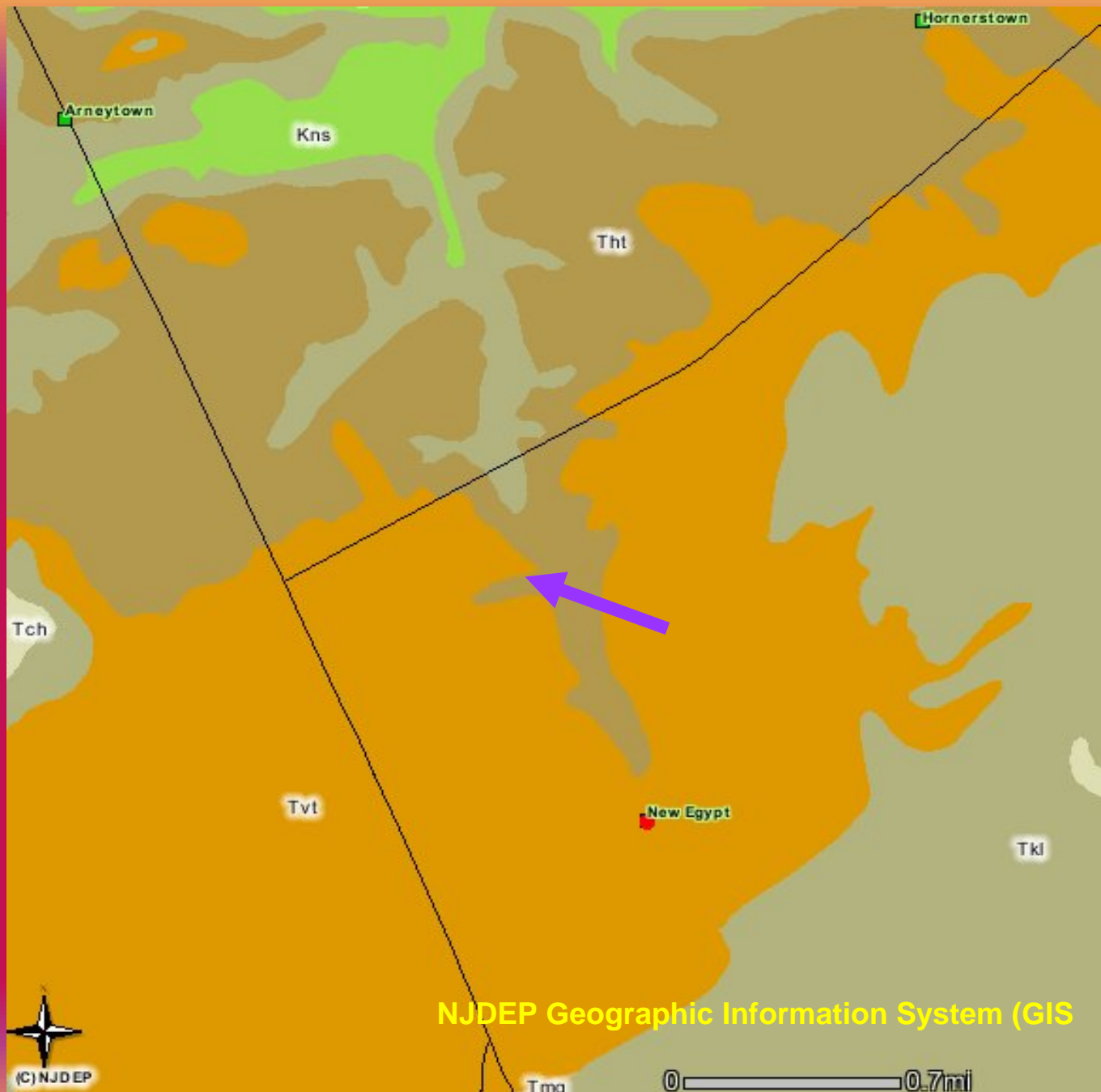
Mi rogeo



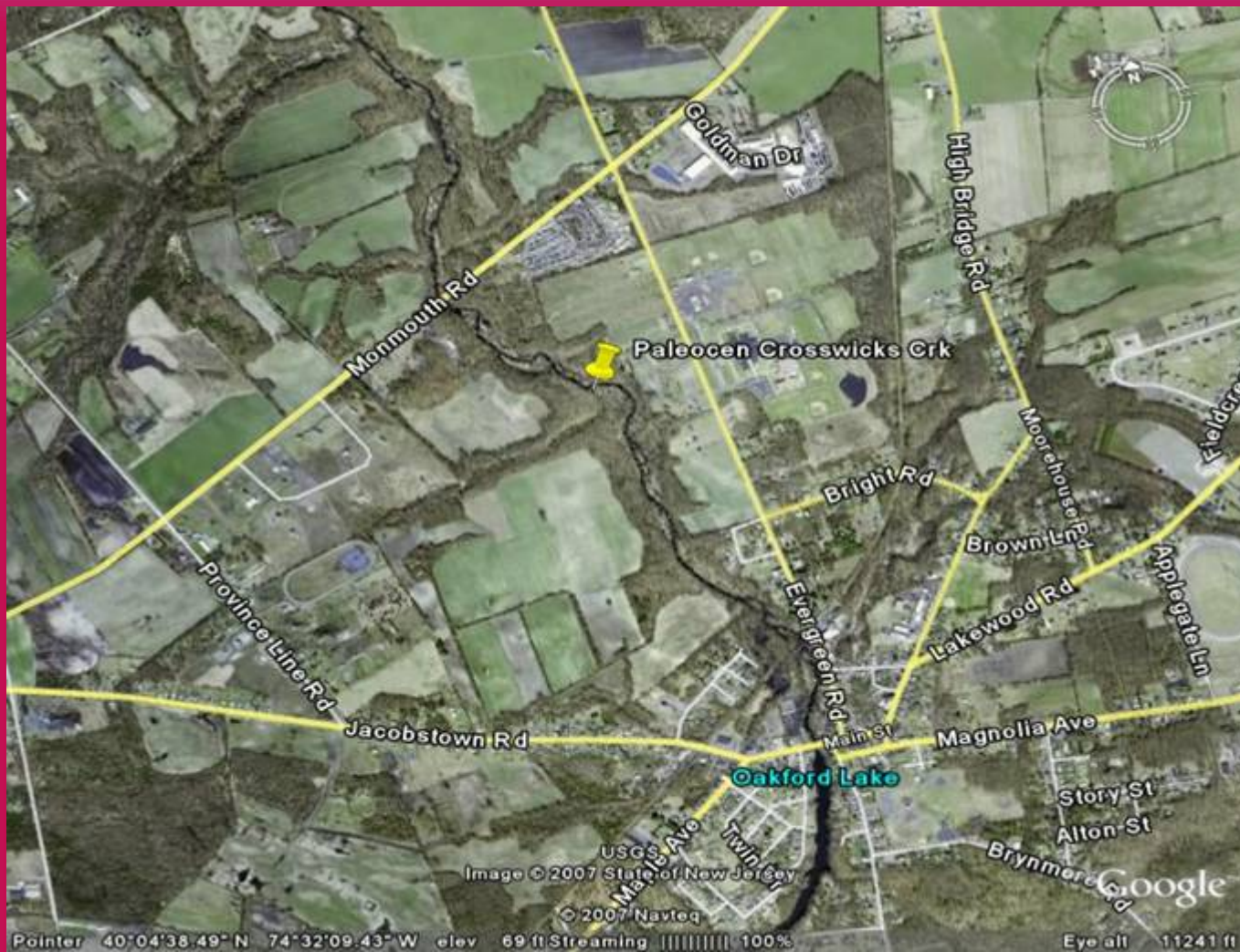
mikrogeo.com



NJDEP Geographic Information System (GIS)



NJDEP Geographic Information System (GIS)



Monmouth Rd

Goldman Dr

High Bridge Rd

Paleocen Crosswicks Crk

Province Line Rd

Bright Rd

Morehouse Rd

Jacobstown Rd

Evergreen Rd

Brown Ln

Lakewood Rd

Applegate Ln

Oakford Lake

Magnolia Ave

Story St

Allon St

Brynmere Rd

USGS State of New Jersey

© 2007 Navteq

Google

Pointer 40°04'38.49" N 74°32'09.43" W elev 69 ft Streaming 100%

Eye all 11241 ft



NJDEP Geographic Information System (GIS)

(C) NJDEP

0 0.18mi

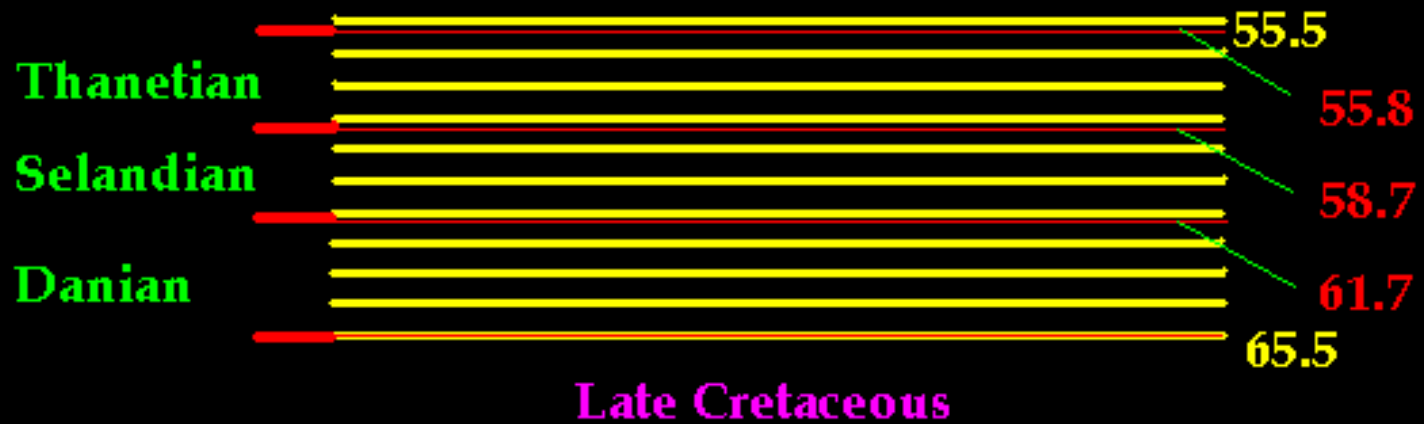
N.J. Paleocene

NP 5-6, P 4



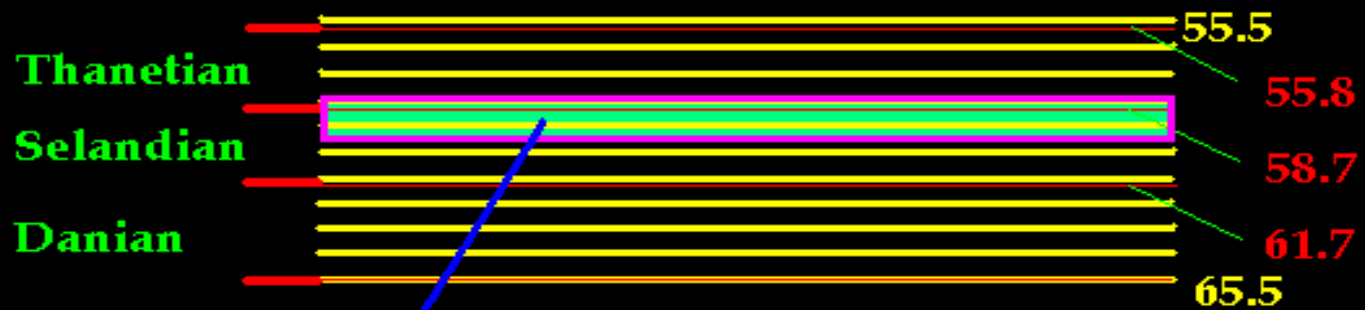
Paleocene Epoch

Eocene



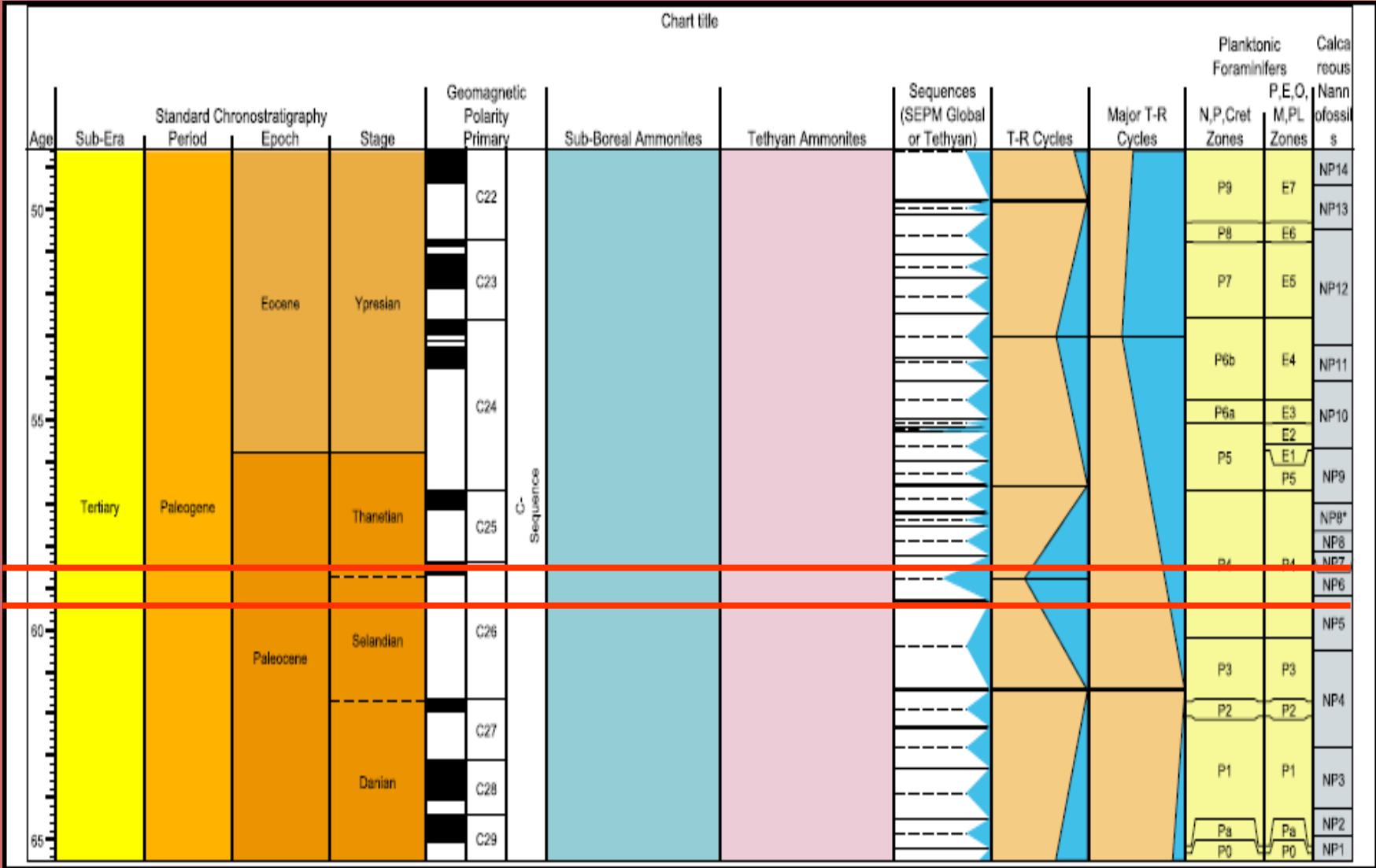
Paleocene Epoch

Eocene



Late Cretaceous

Lower Vincentown Fm. ~59 Ma

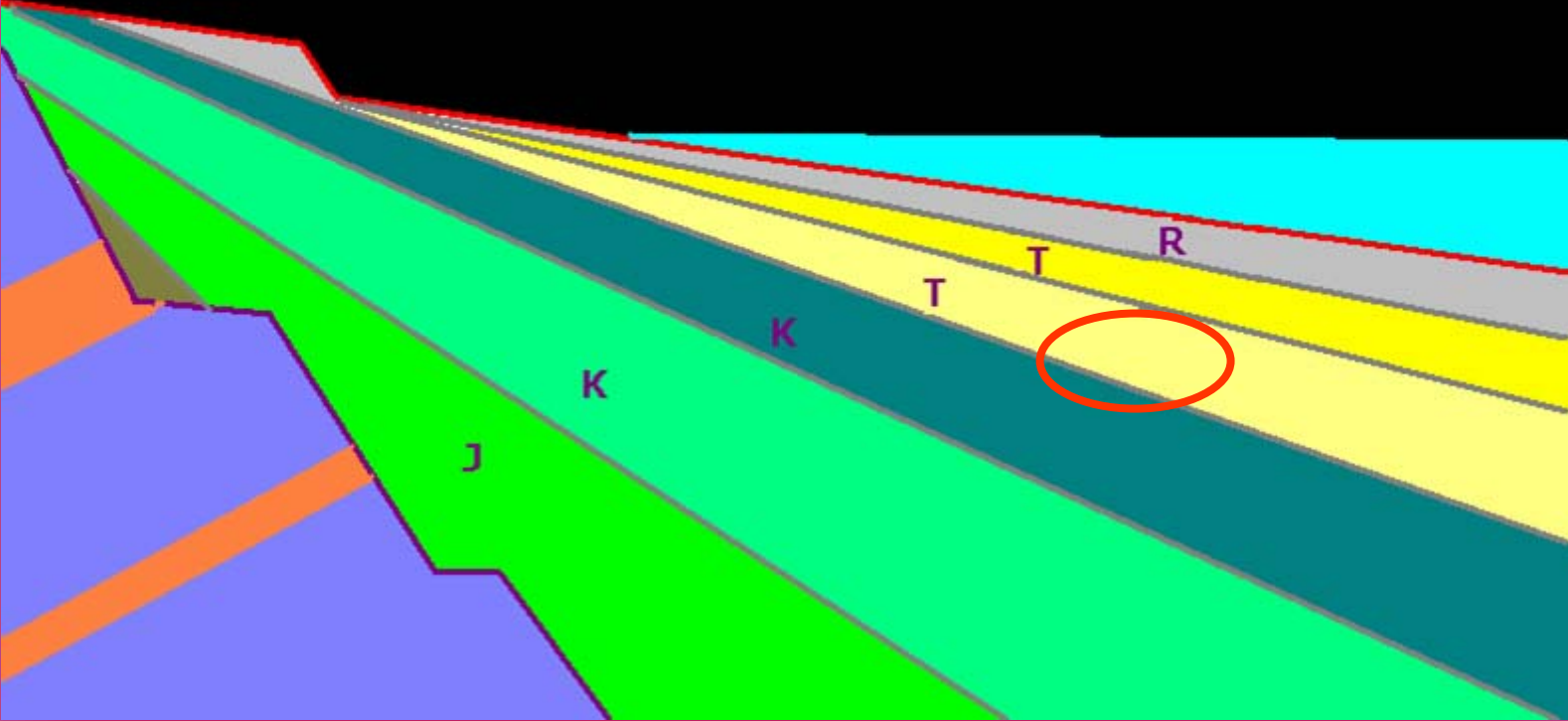


Courtesy: ICS / IUGS, 2004,
Gradstein, et al.

COASTAL PLAIN

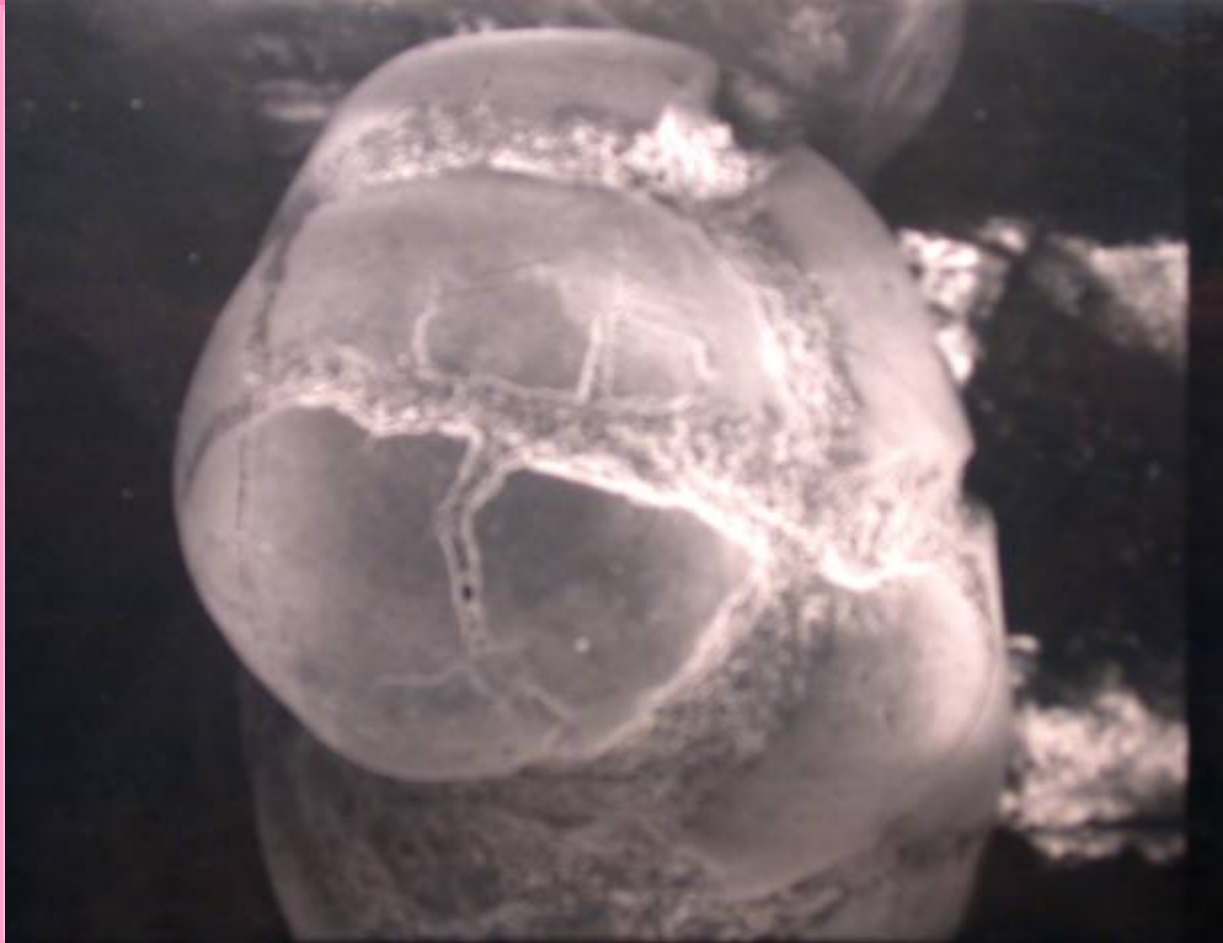
NW

SE



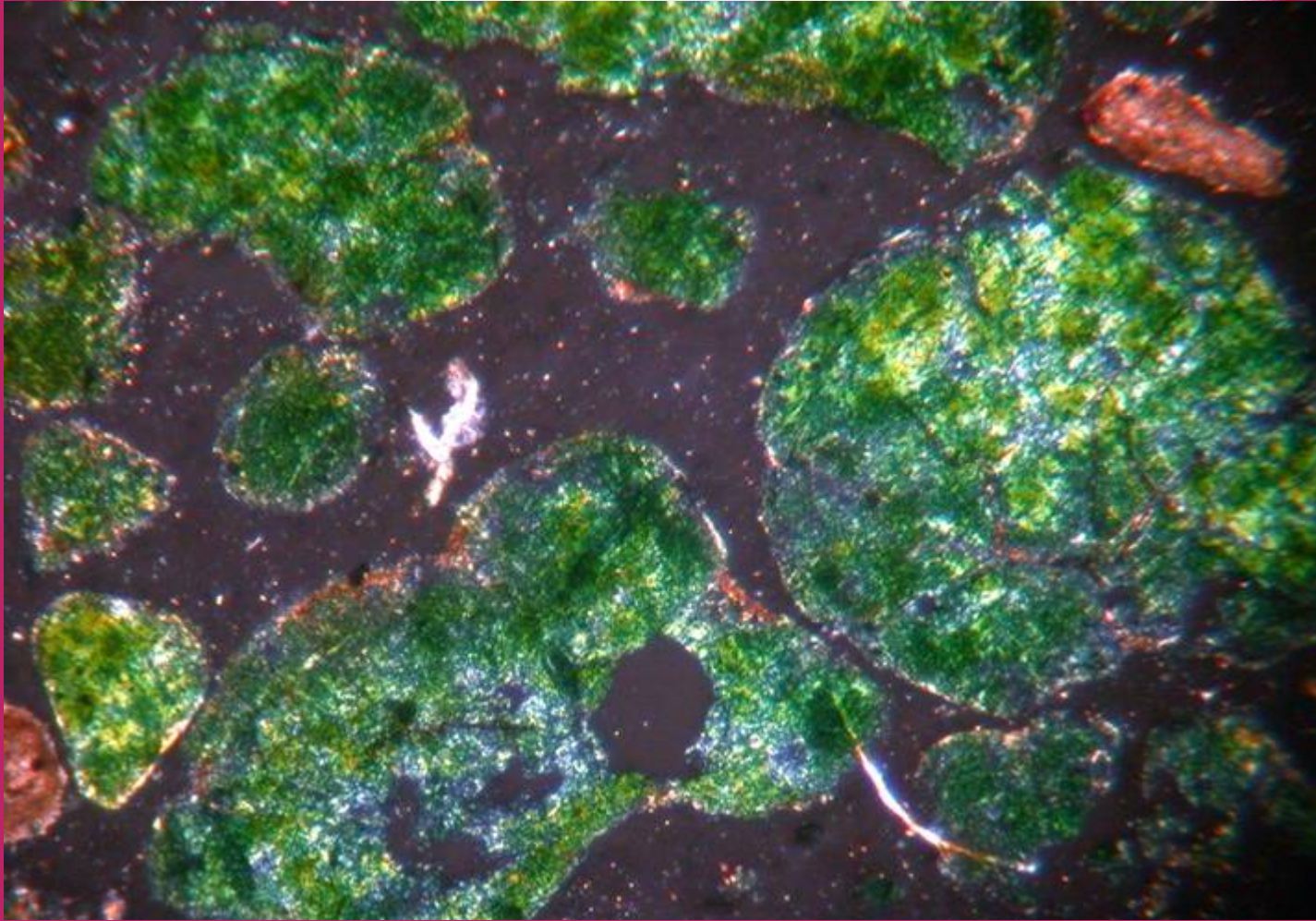


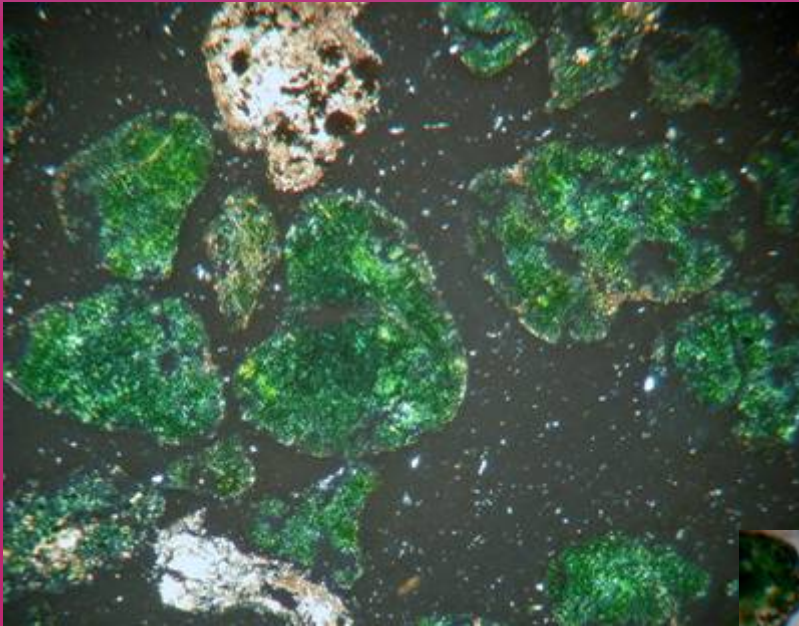
Fractured Glauconite Grain



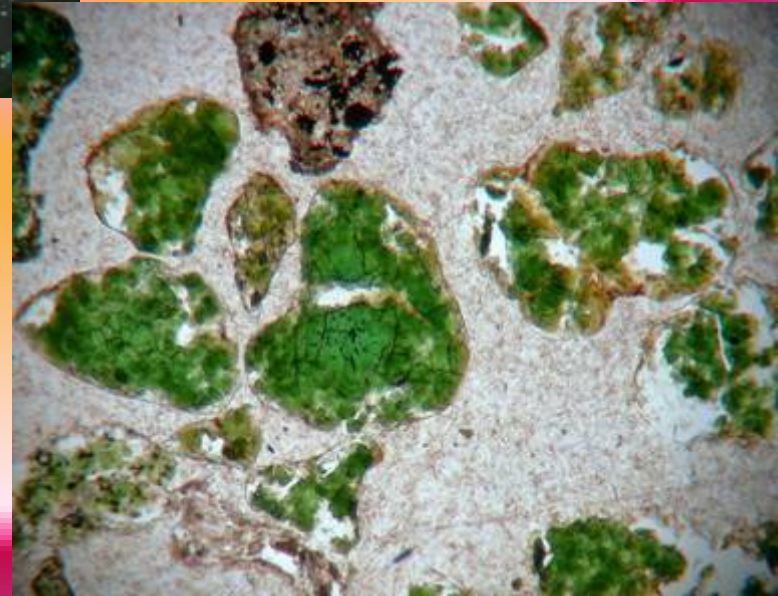
A green Fe-rich authogenic clay mineral

Glauconite Grains: thin section, xpl



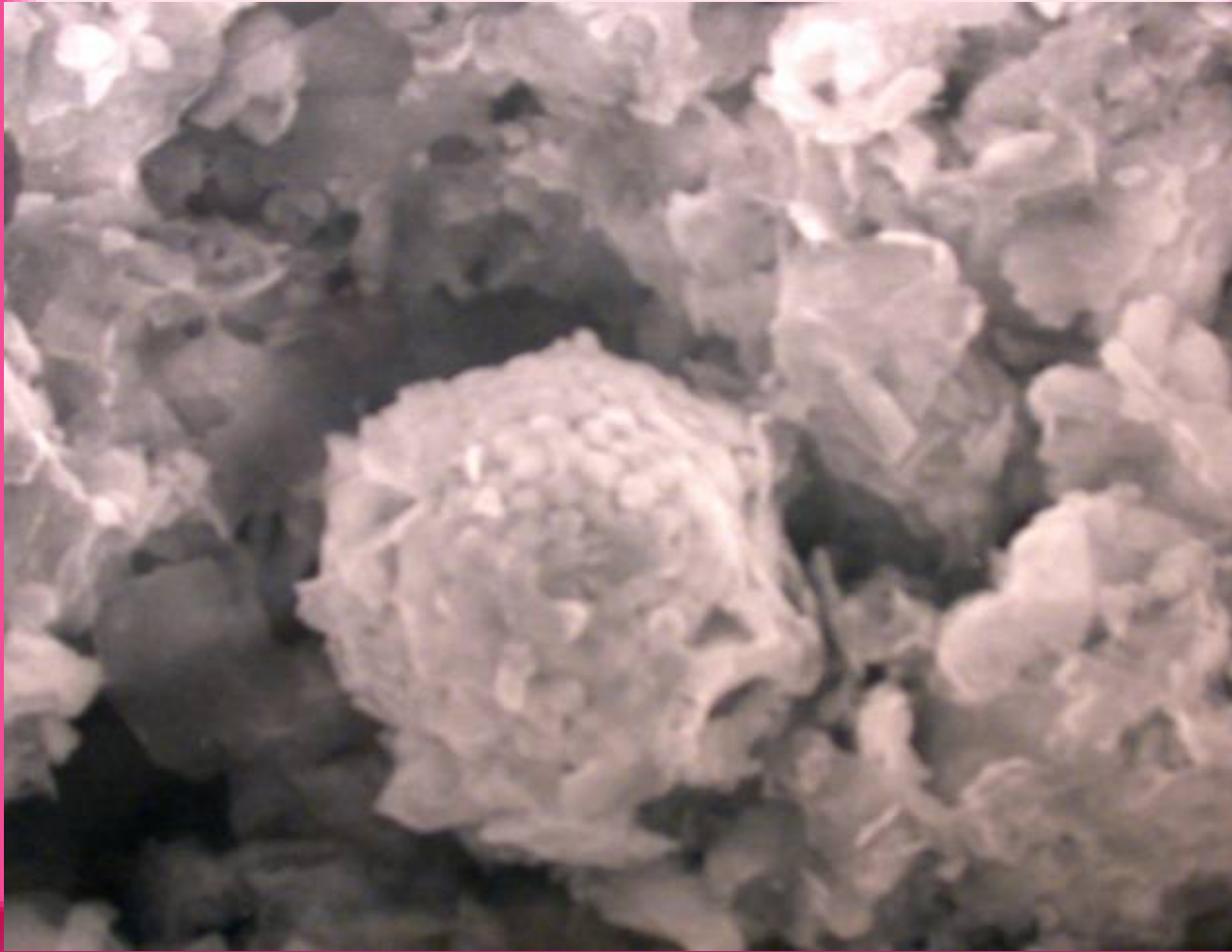


XP



PPL

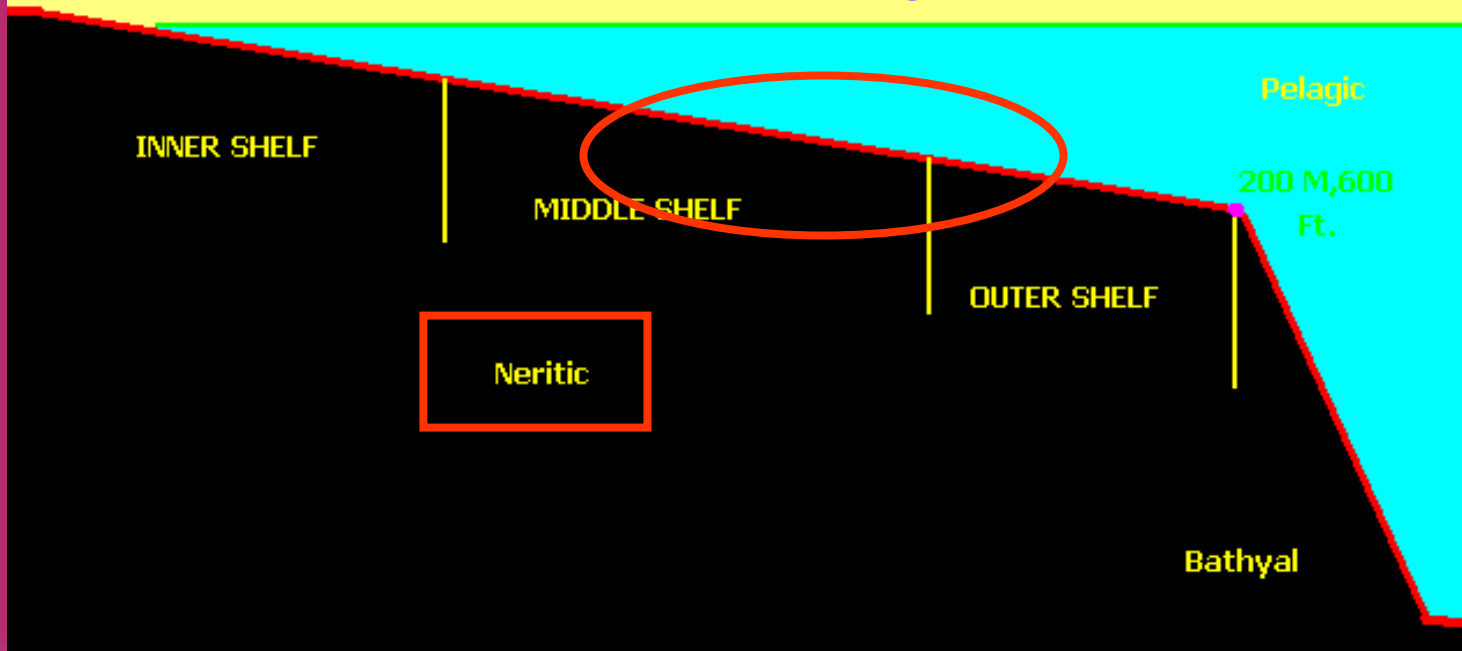
Pyrite "Framboid"





~59 Ma

Lower Vincentown "Time"

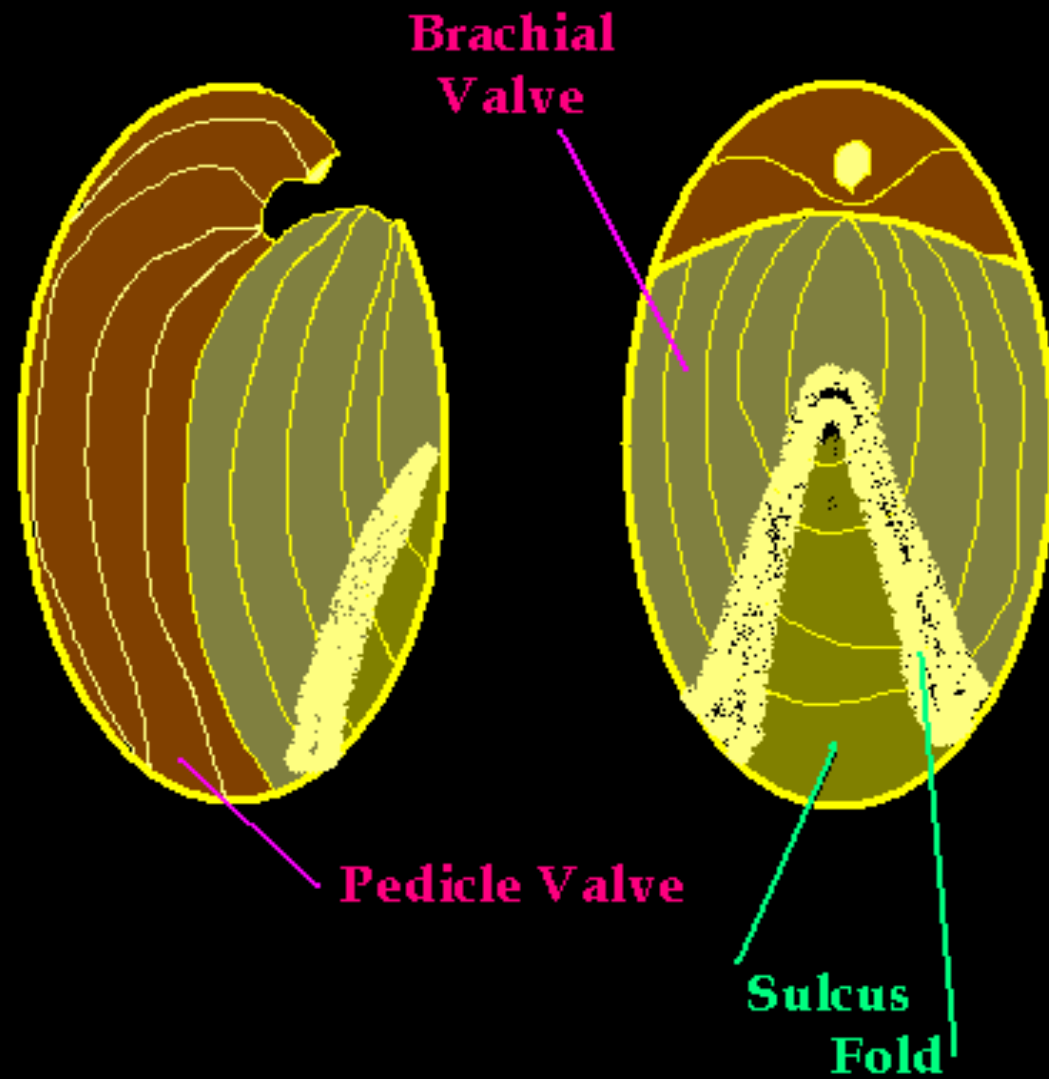




Oleneothyris harlani



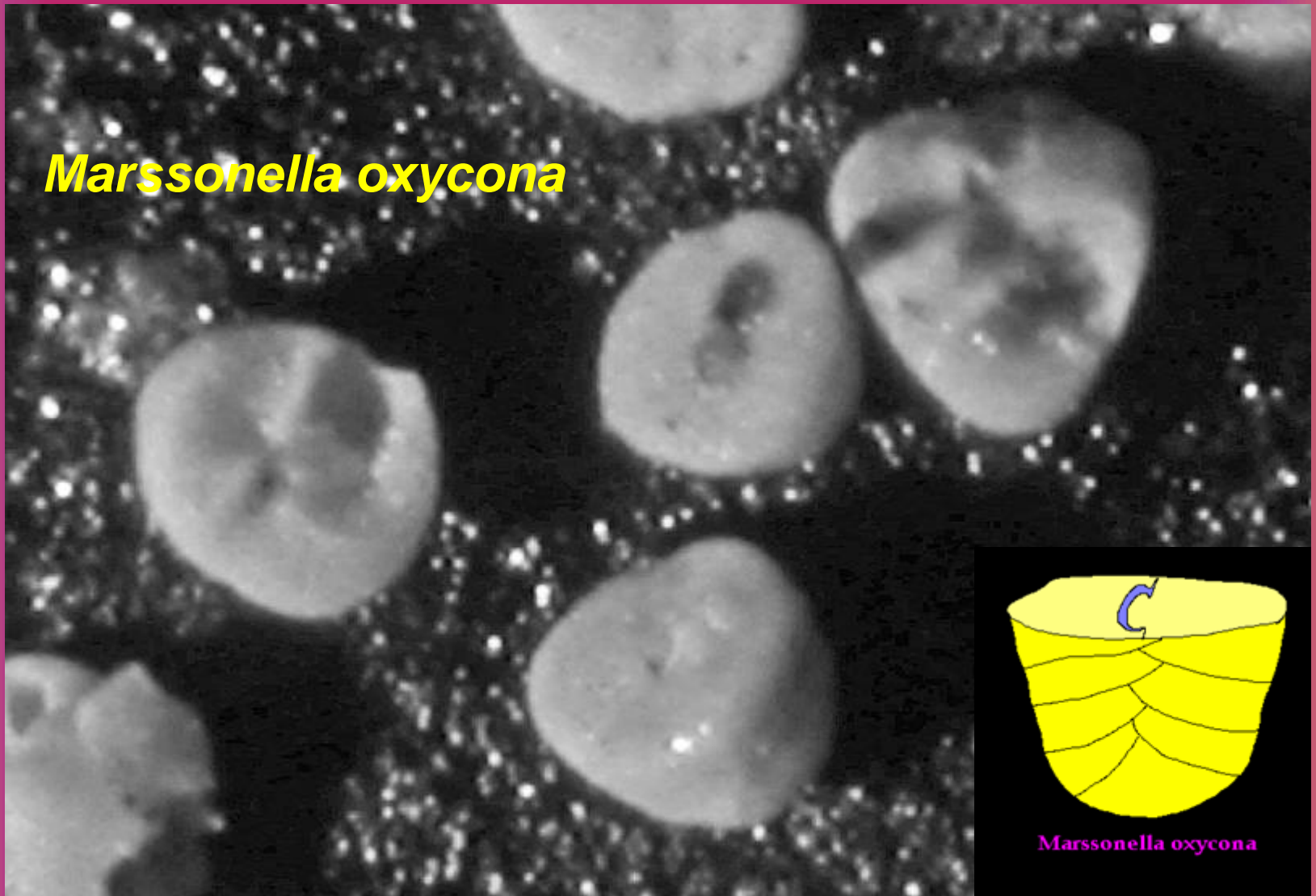
Oleneothyris harlani



Foraminifera

-Benthic

Marssonella oxycona



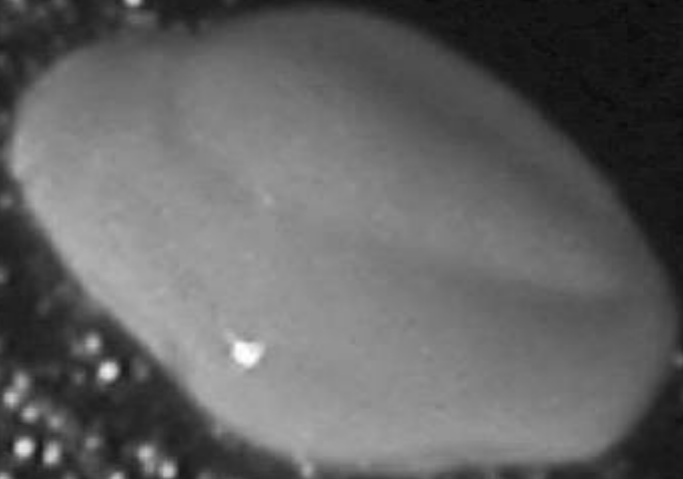
Marssonella oxycona



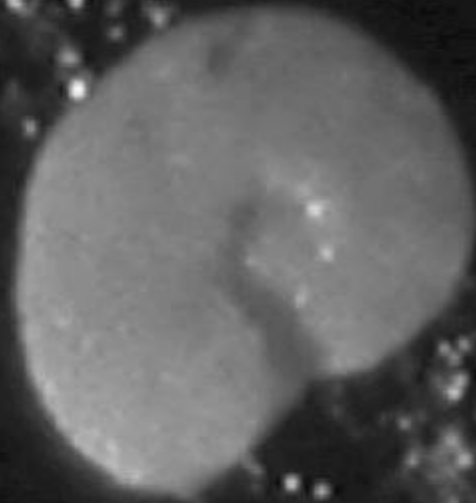
Marssonella oxycona

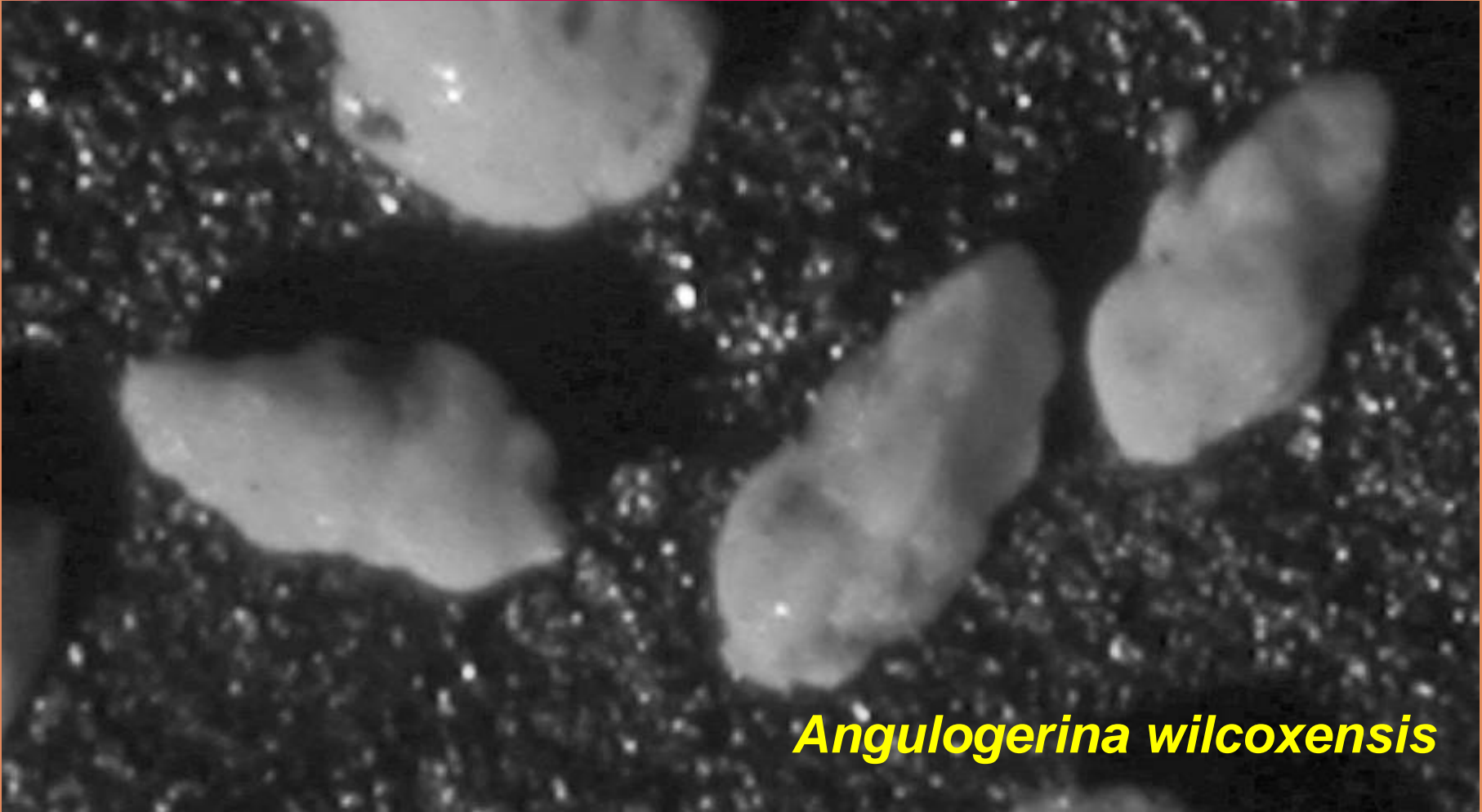
Anomalinoidea

Guttulina sp.



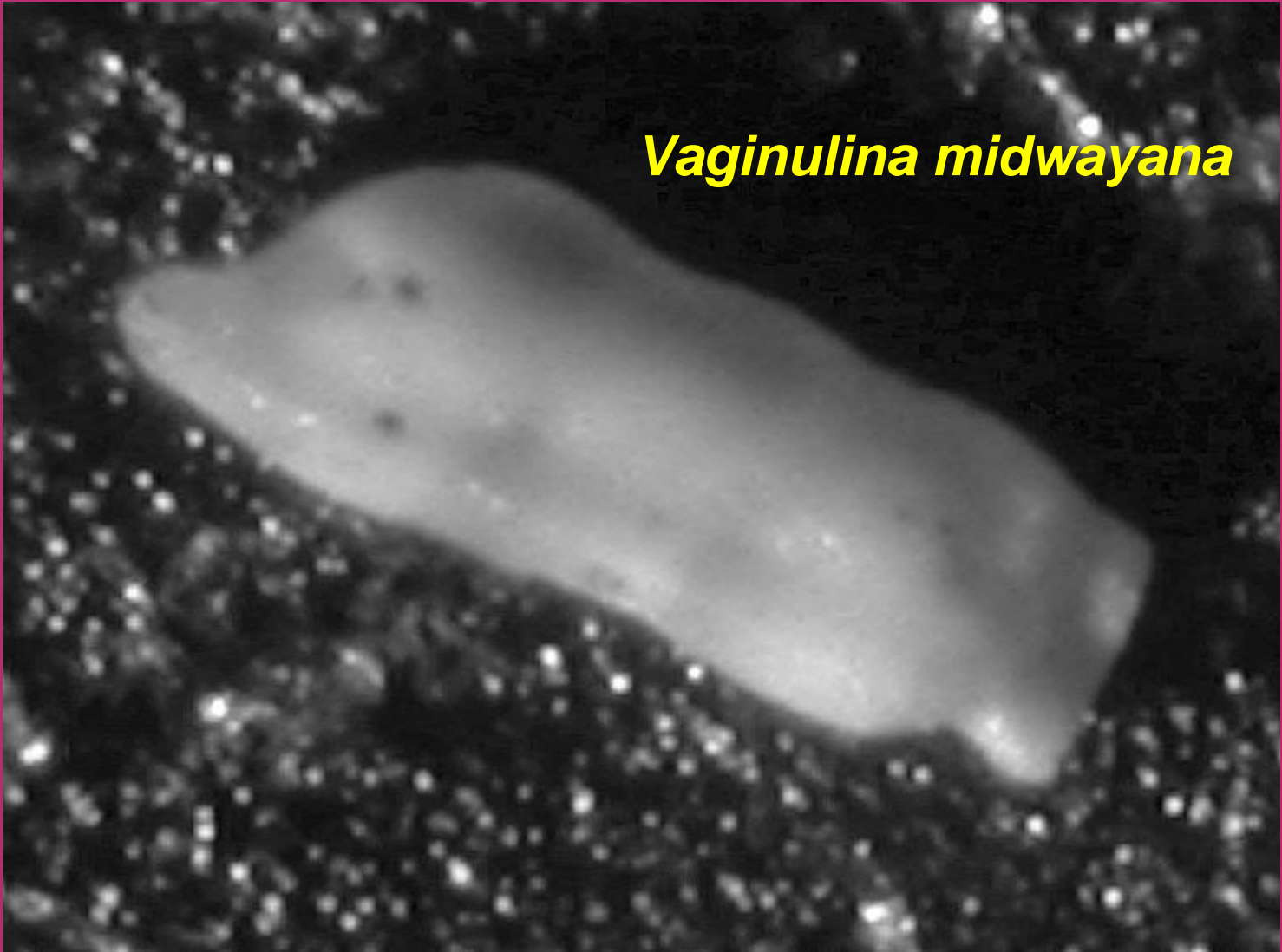
***Anomalinoides
midwayensis***



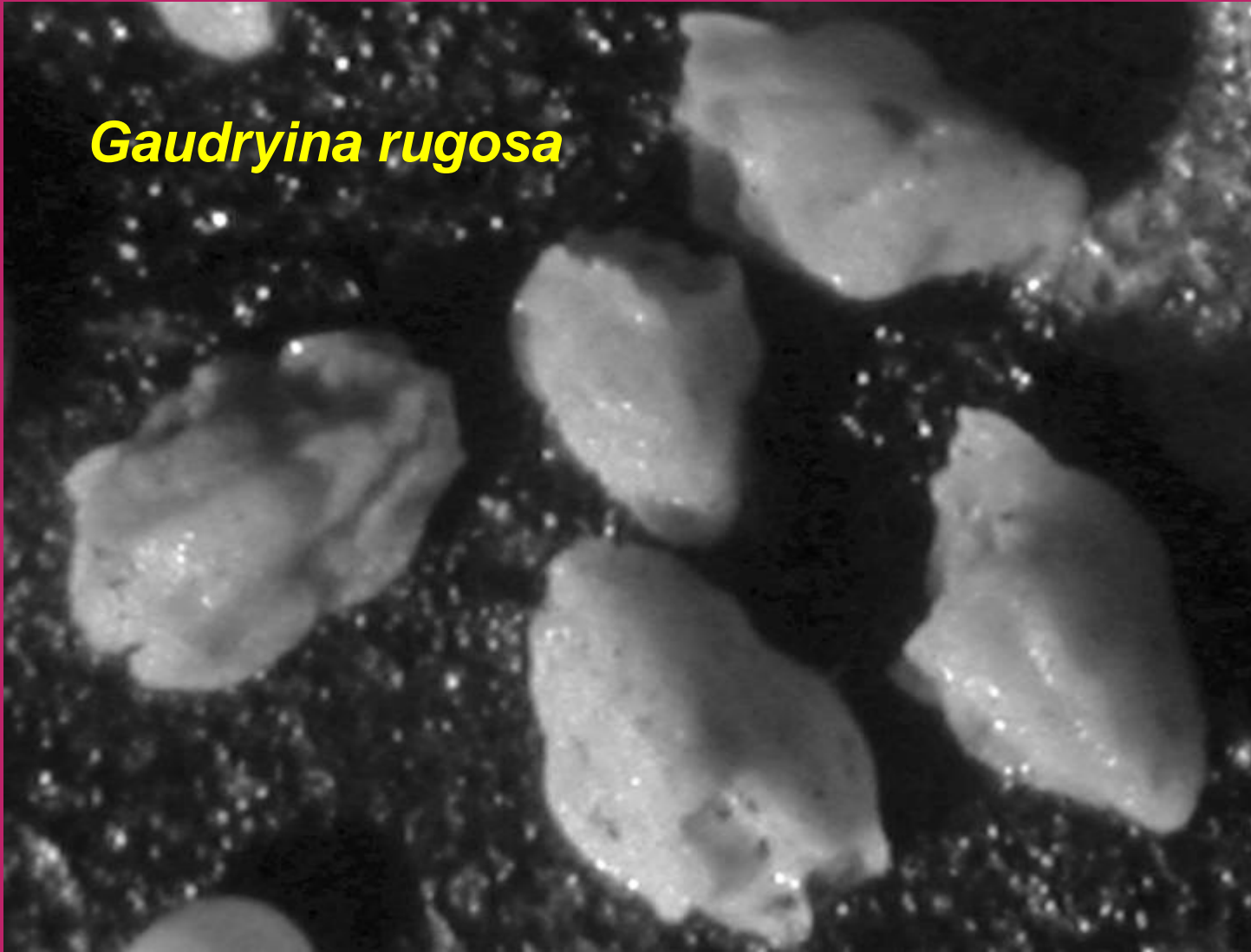


Angulogerina wilcoxensis

Vaginulina midwayana

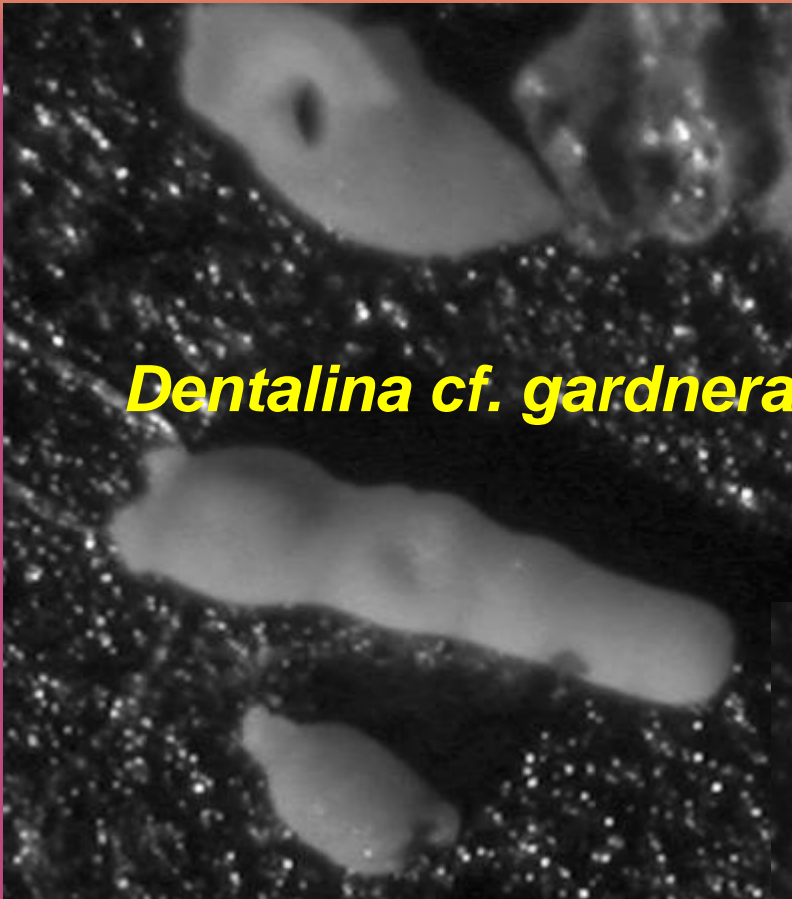


Gaudryina rugosa

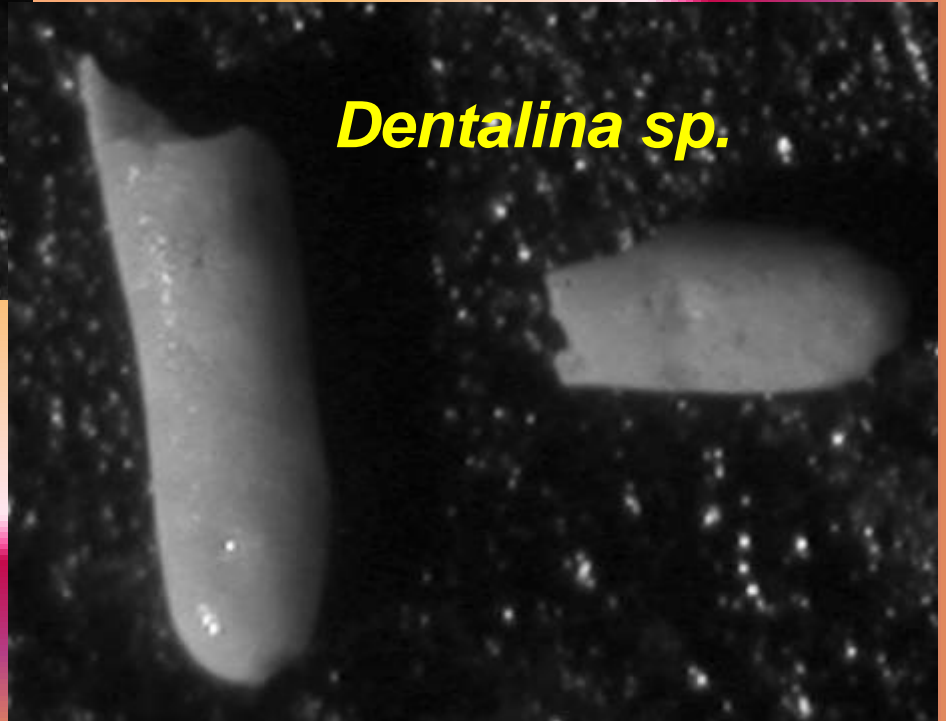




*Spiroplectamina
wilcoxensis*



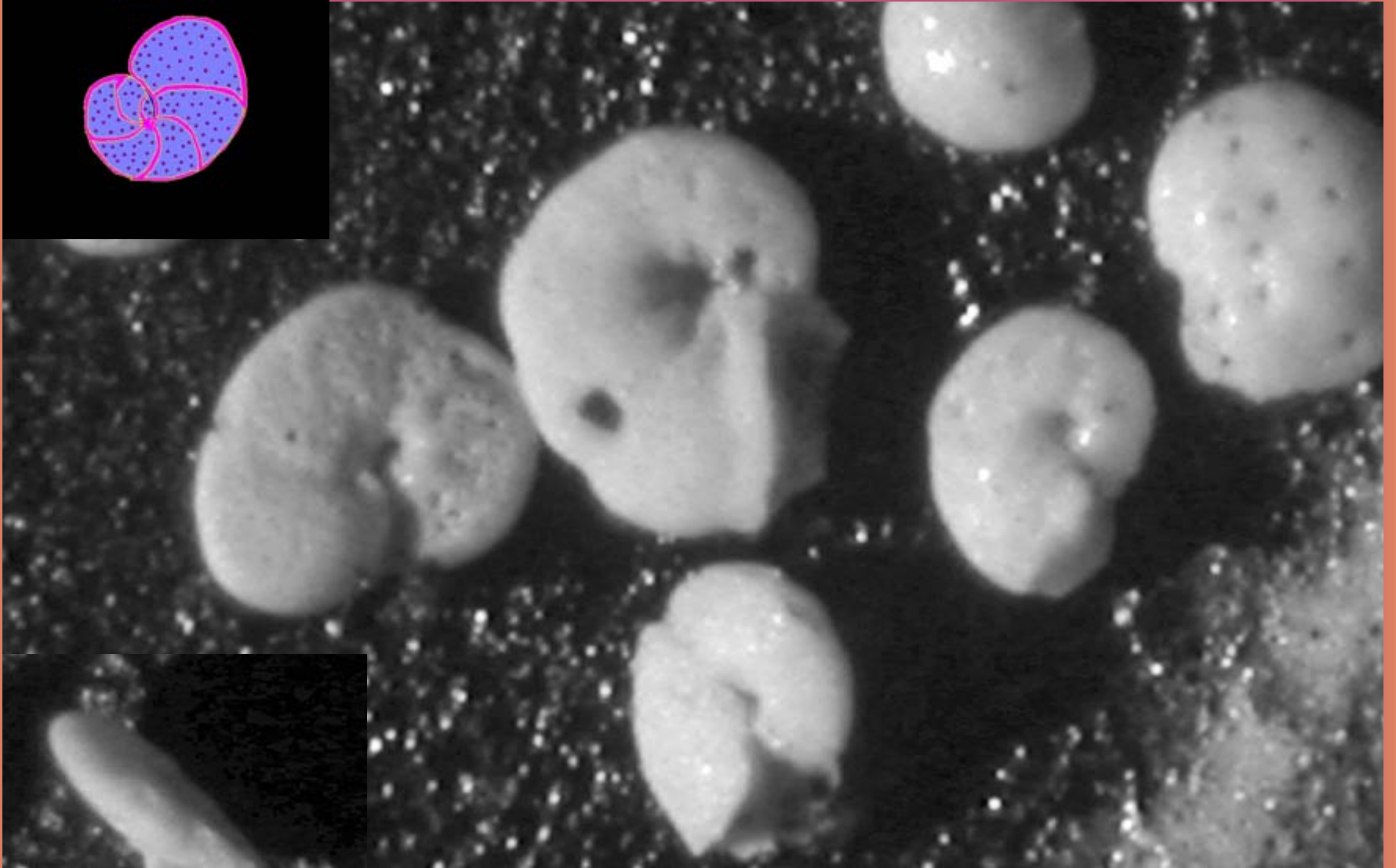
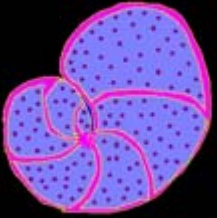
Dentalina cf. gardnerae



Dentalina sp.

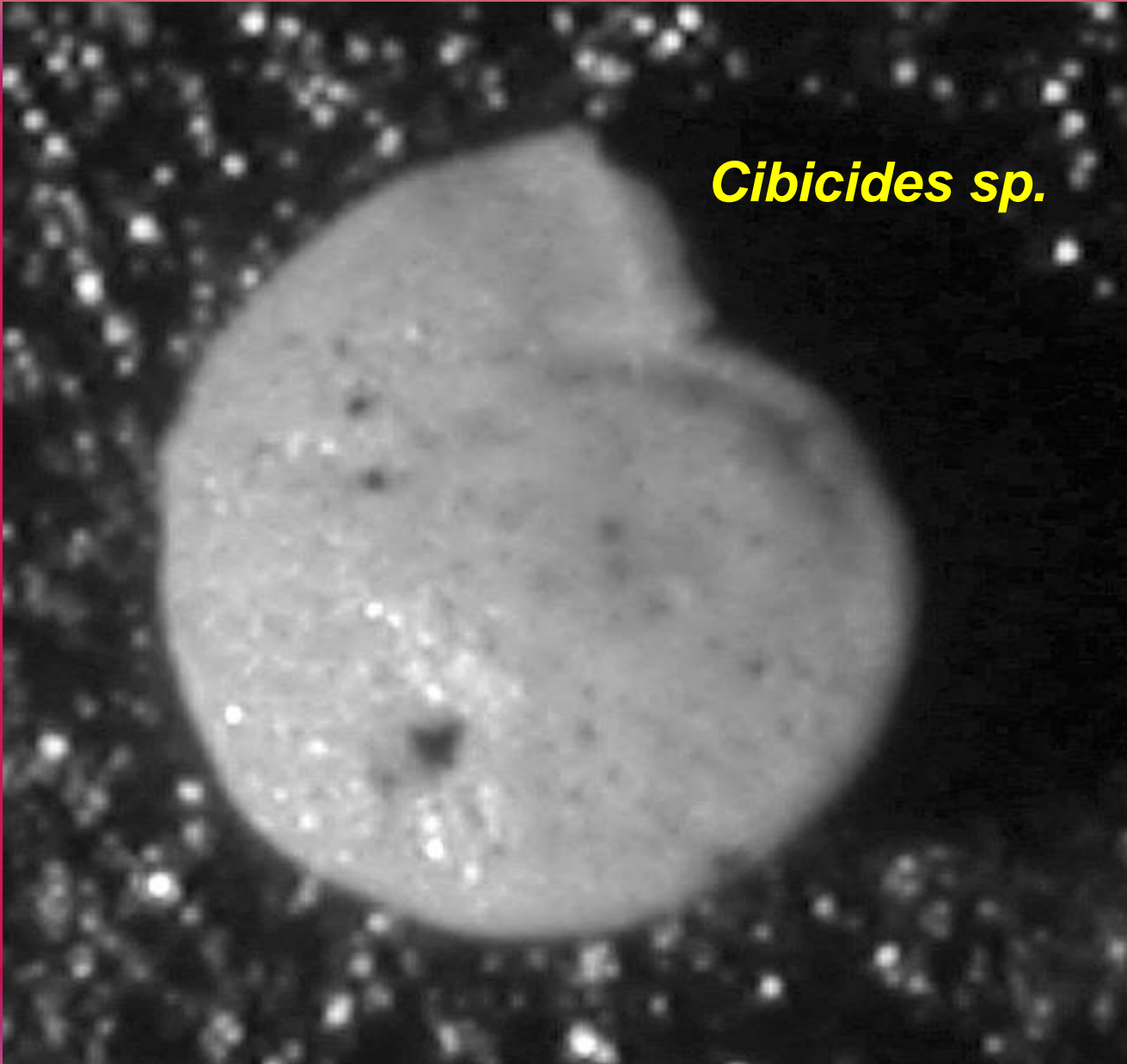


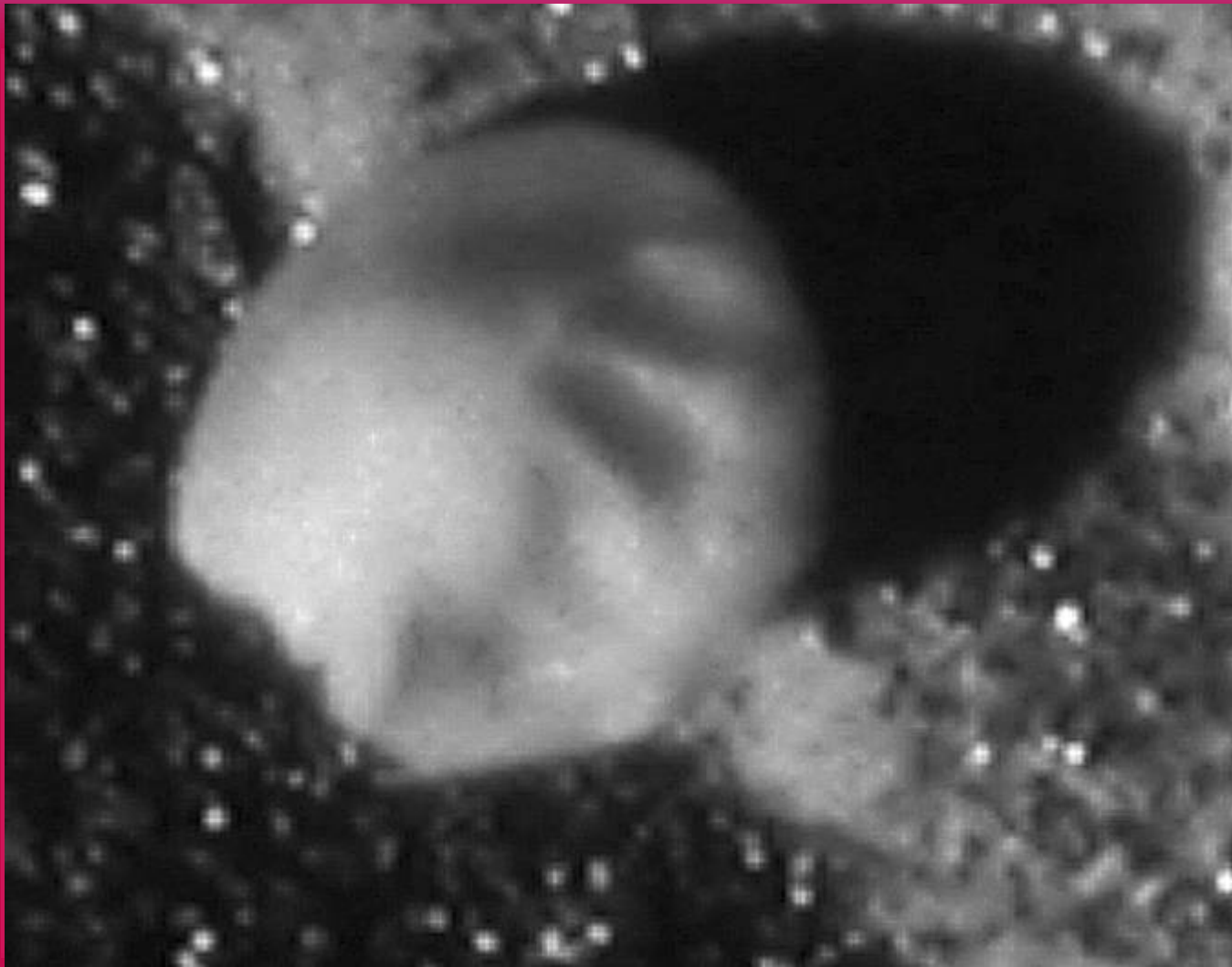
Anomalinoides sp.



Anomalinoides midwayensis

Cibicides sp.



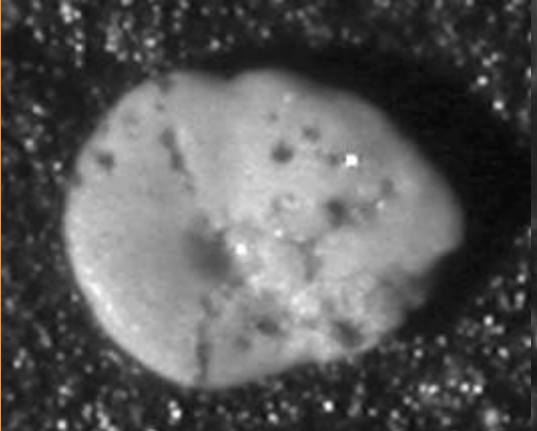
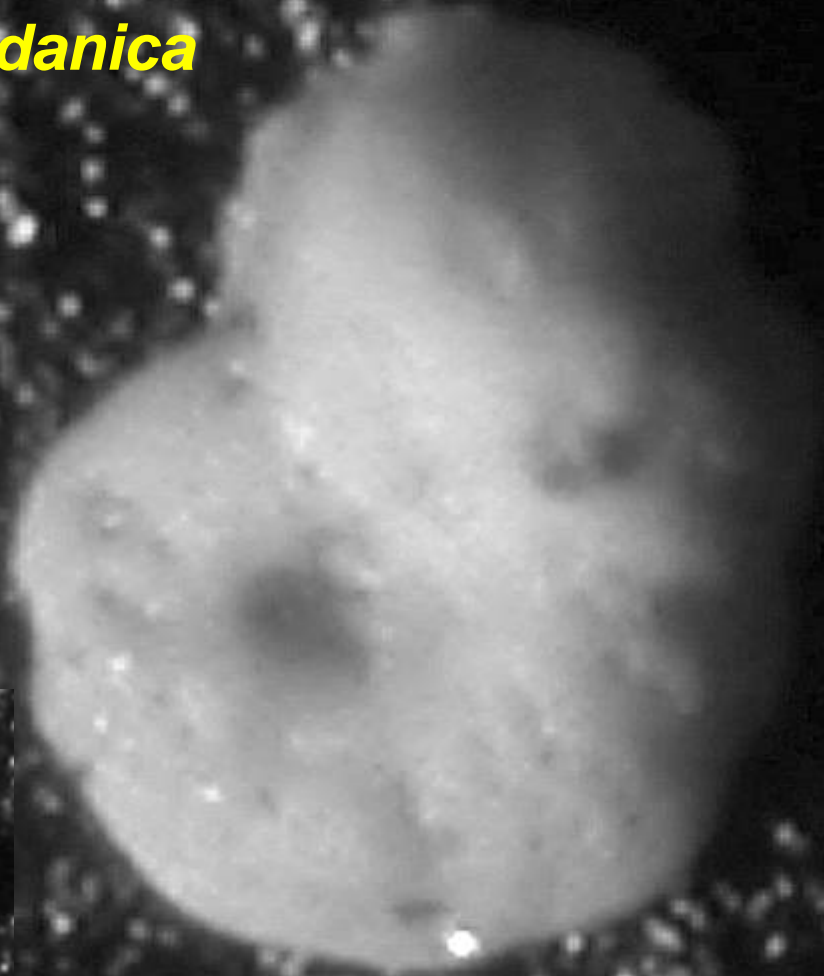


Lenticulina...all badly eroded

Nodosaria affinis



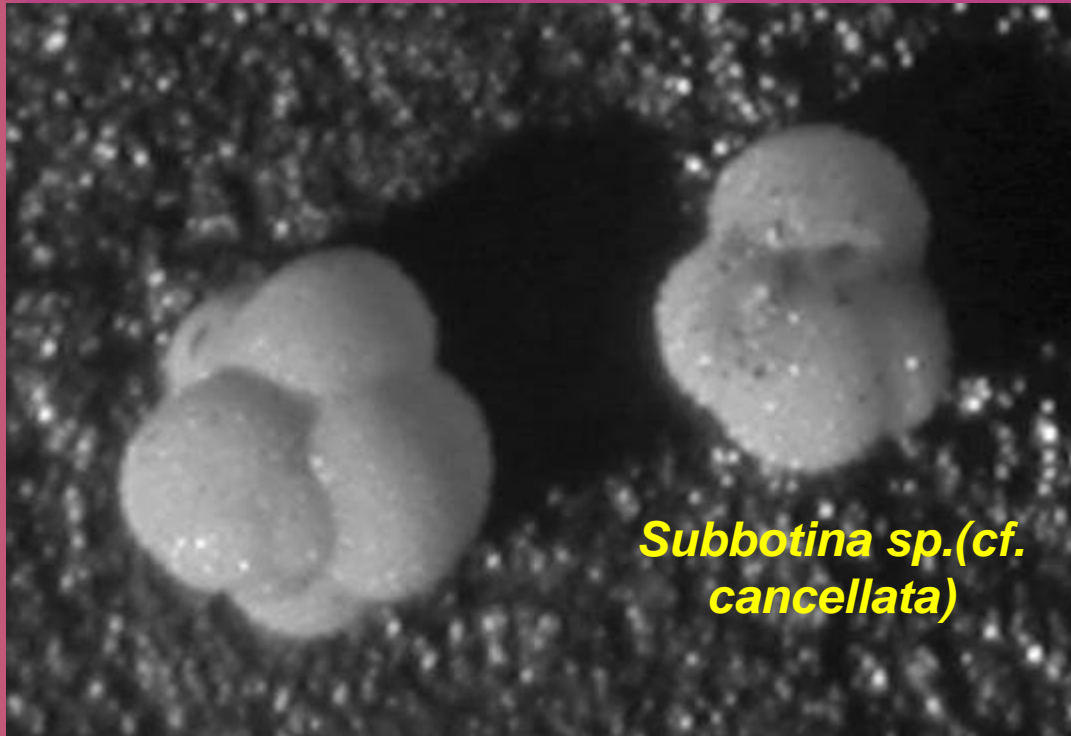
*Anomalinoides
danica*



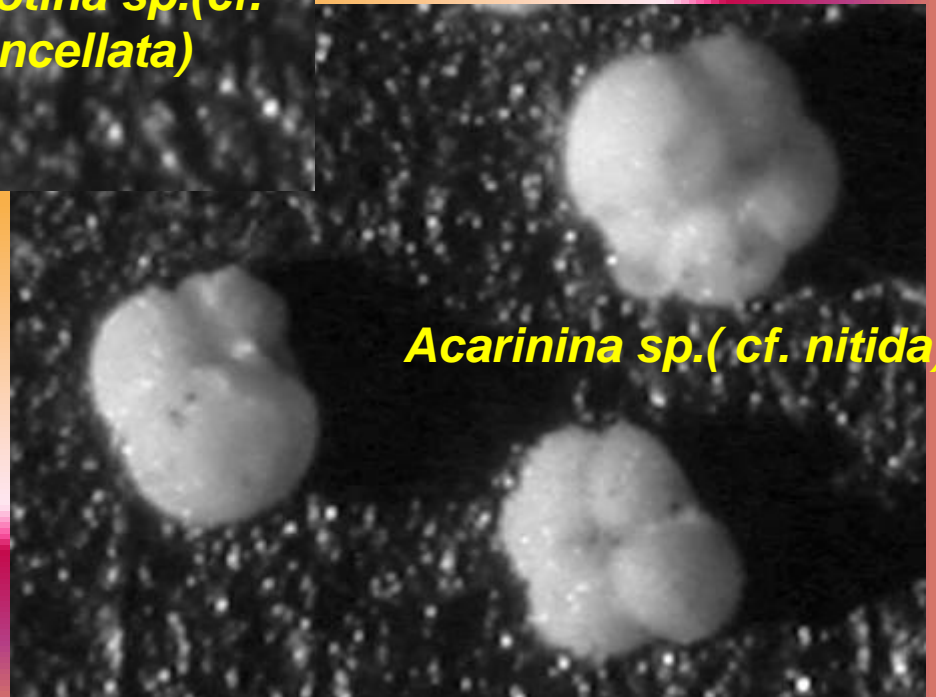
Foraminifera

-Planktonic

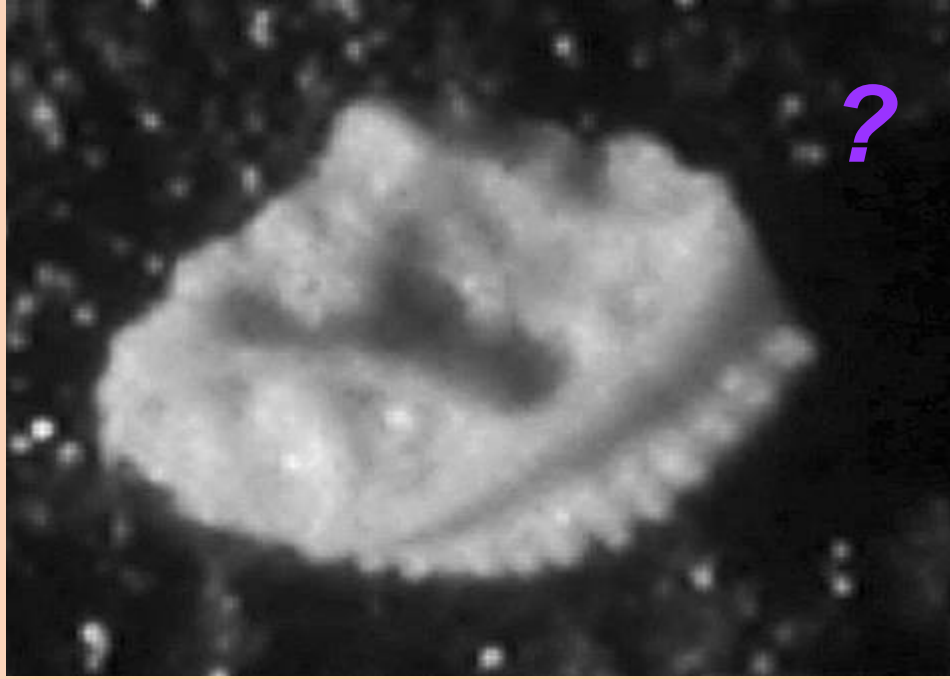
~ 12 % of Forams



Subbotina sp.(cf.
cancellata)



Acarinina sp.(cf. *nitida*)

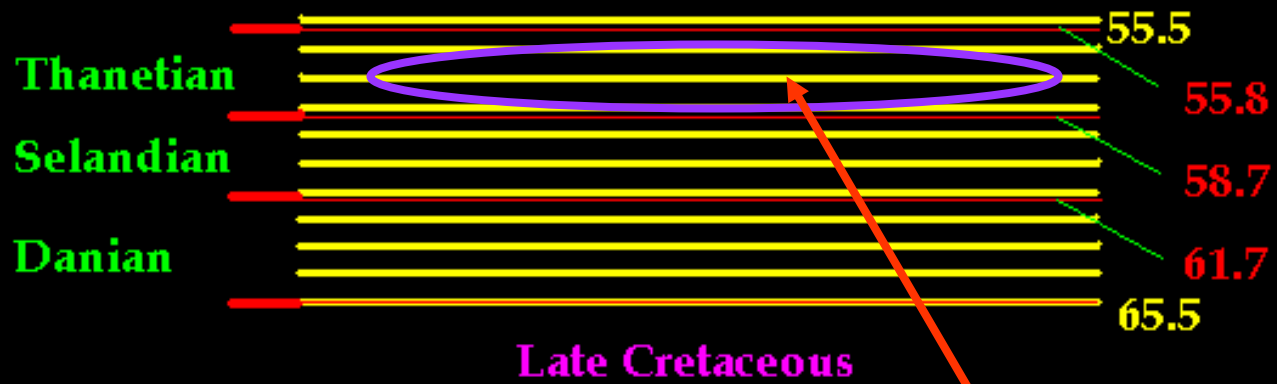


***Later, Shallower Facies
as Demonstrated by a
Rich, High Diversity
Bryozoan Biostrome***

Old Stokley Cannery Property

Paleocene Epoch

Eocene



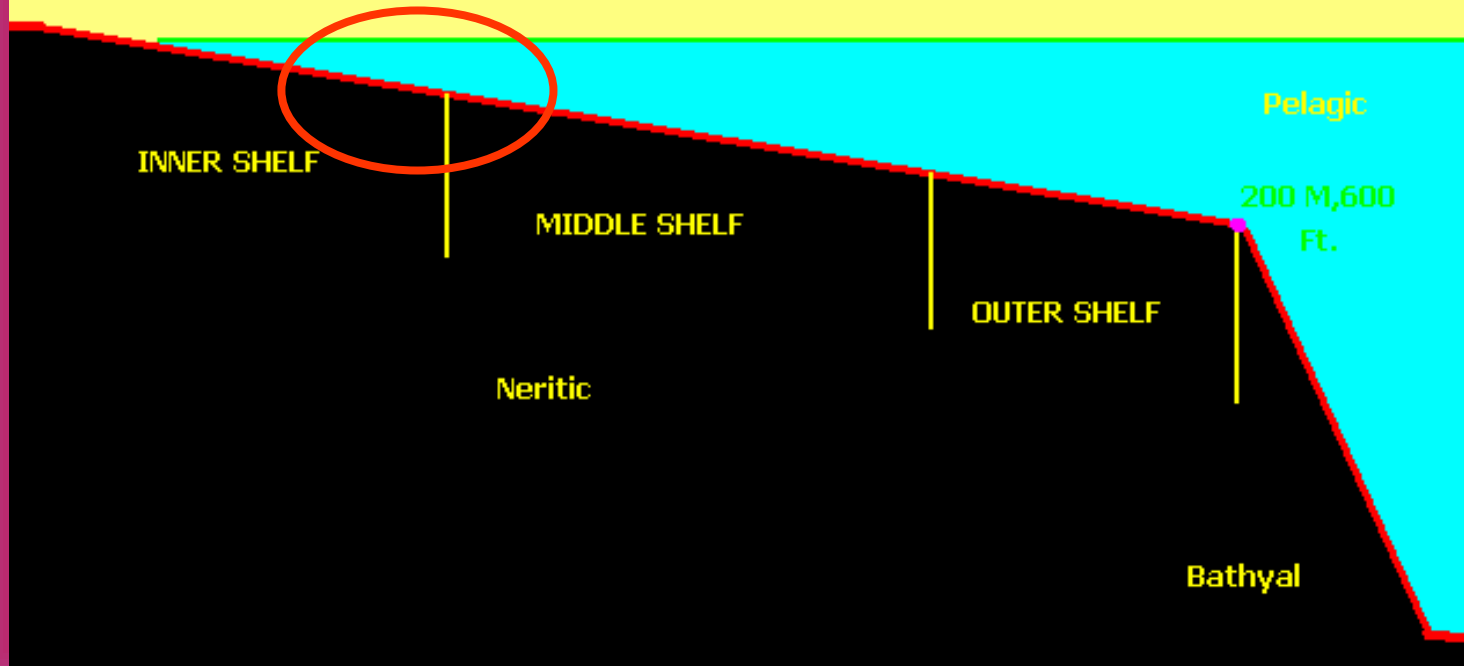
Later Vincentown Bryozoa Beds @ 57-58 Ma

Upper Vincentown Shallower Bryozoan Facies, ~57-58 Ma



Courtesy: ICS / IUGS, 2004,
Gradstein, et al.

By 57-58 Ma

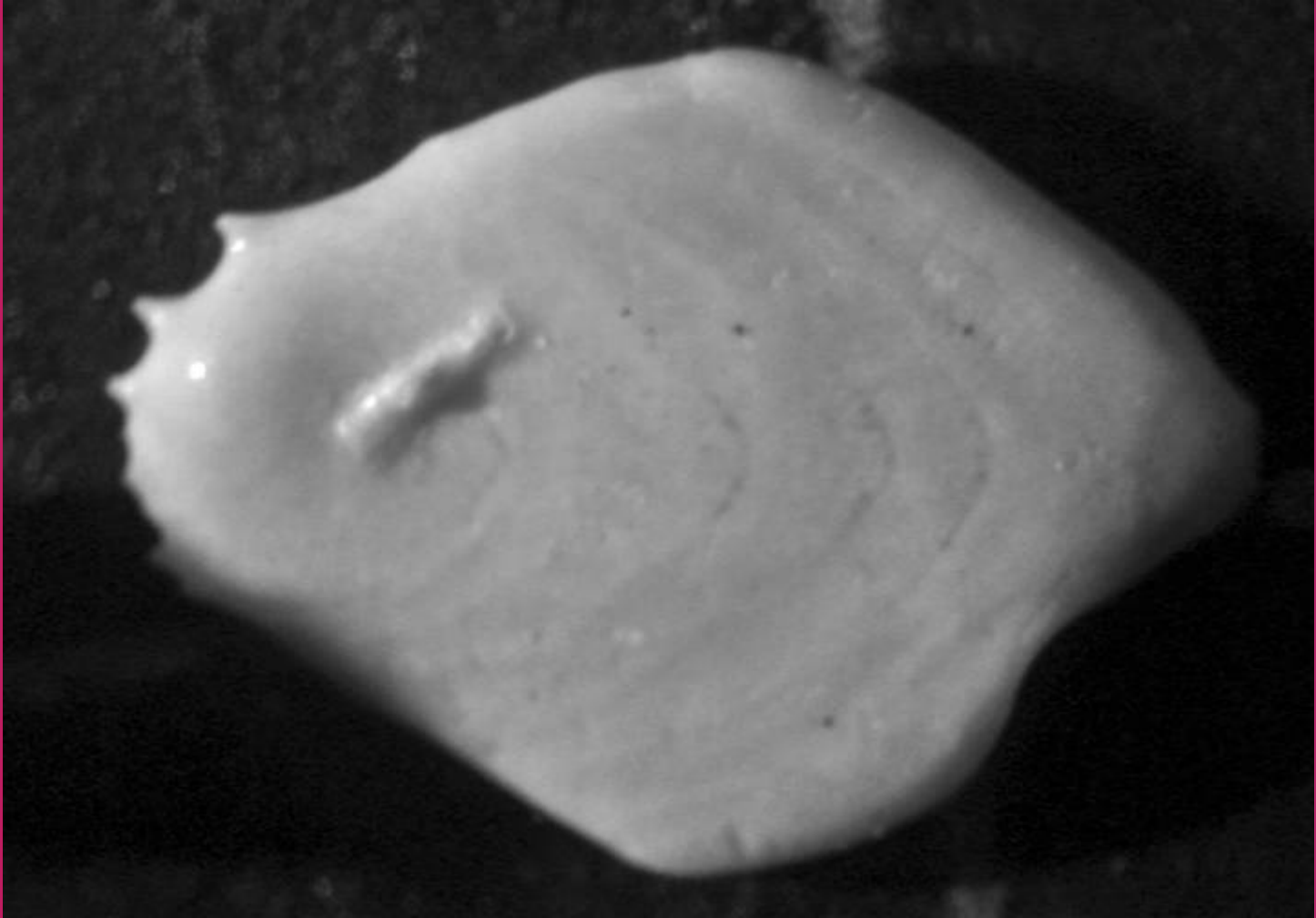


N.J. Paleocene

NP 5-6, P 4



Palmula sp.



3.5 mm

Oridorsalis plummerae





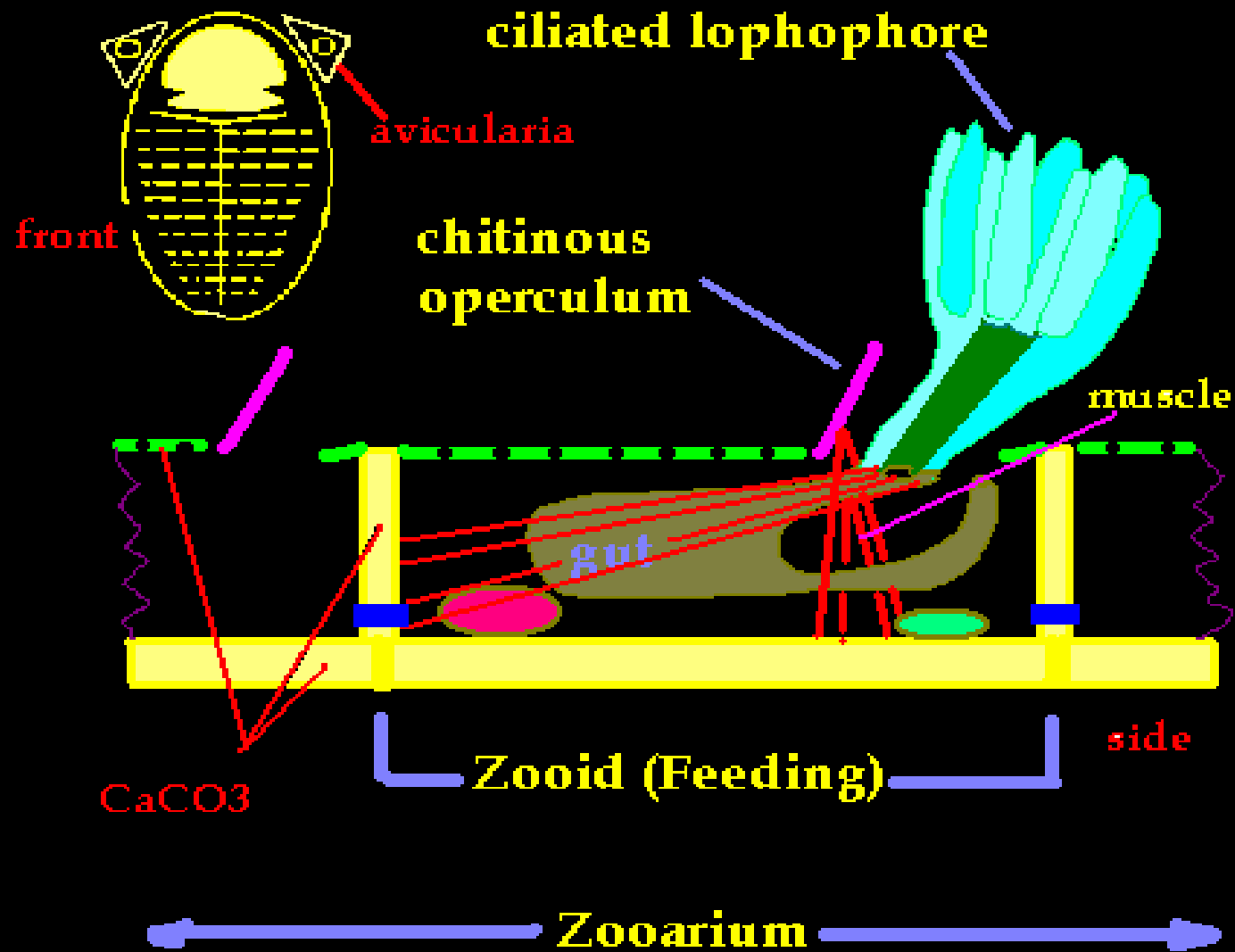
*Lenticulina
midwayensis*

The image shows three bivalve shells against a dark, textured background. One shell is positioned at the top center, another at the bottom right, and a third, which is elongated and curved, is at the bottom left. The shells are light-colored and appear to have a slightly glossy surface.

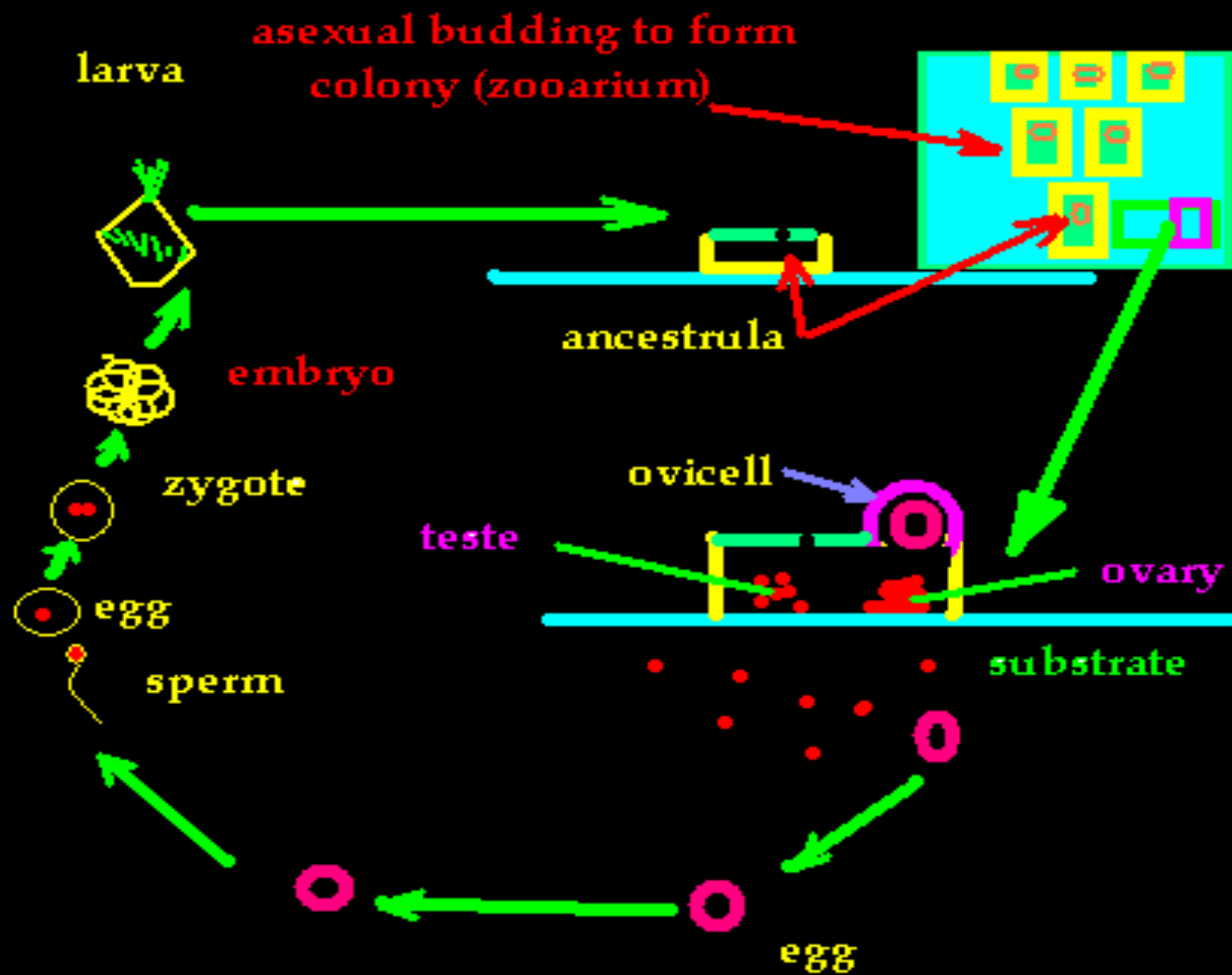
Dentalina colei



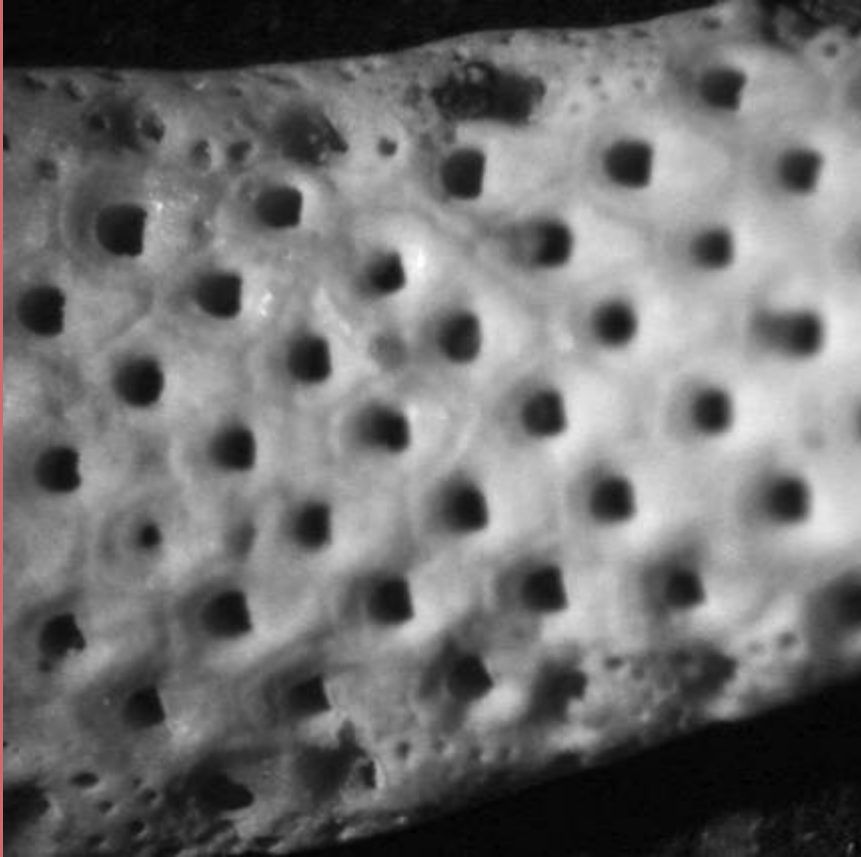
**Ophiuroidea arm ossicles ('vertebra')
& Echinoidea spine base**



A Cheilostome Bryozoa polyp
Eucoelomate-Deuterostome



Bryozoan Life Cycle

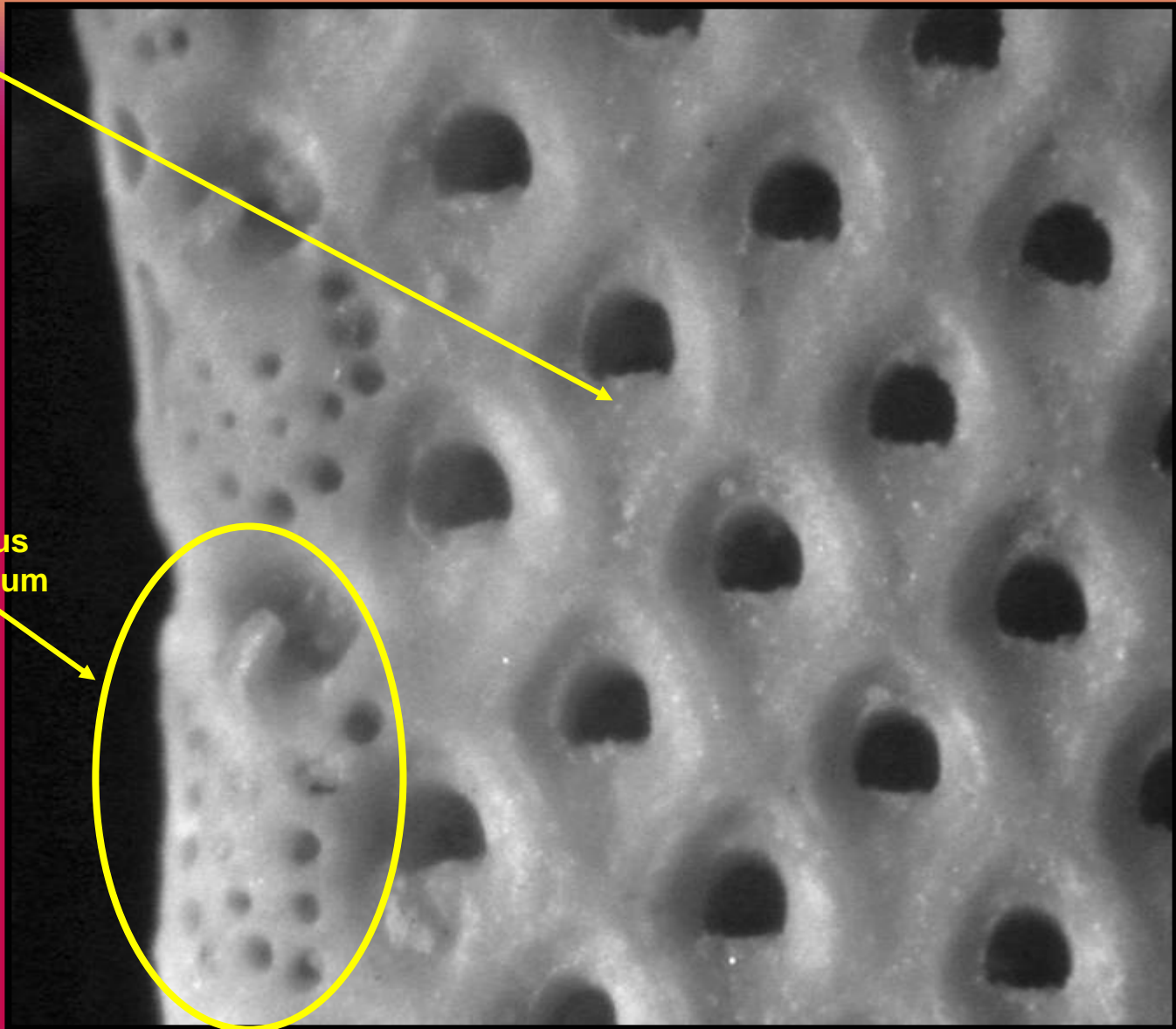


*Coscinopleura
digitata*



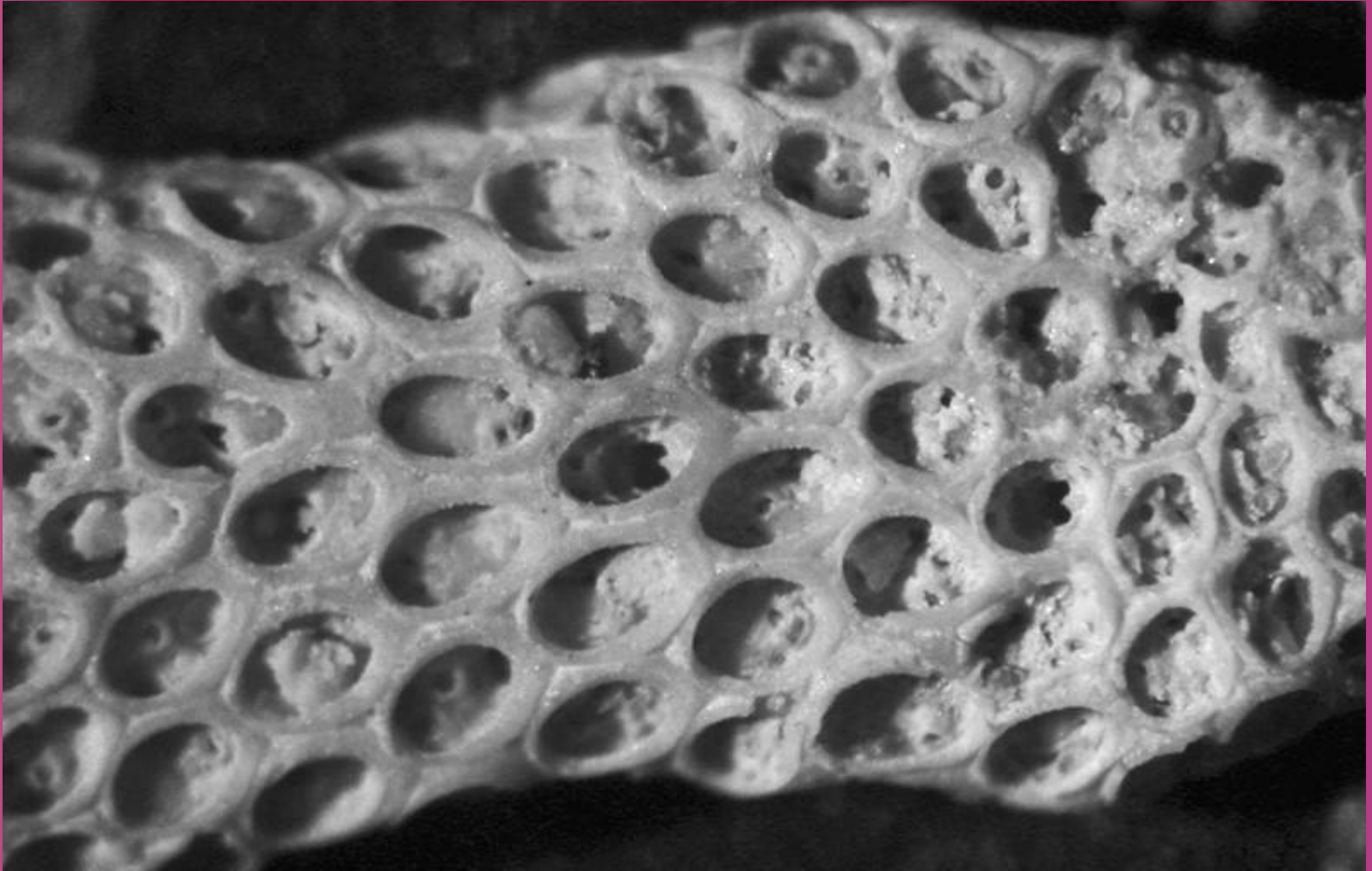
Feeding
Zoid

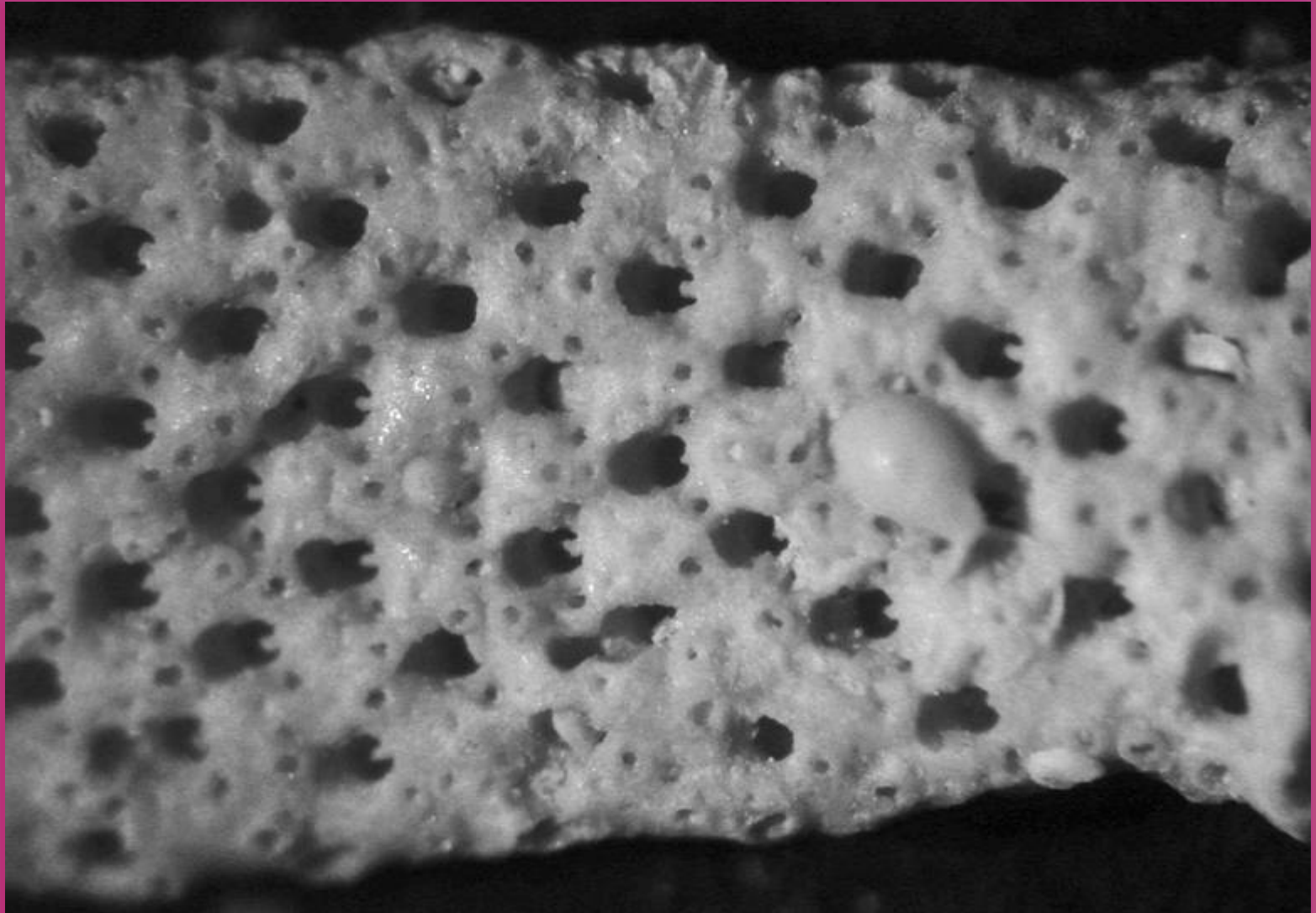
Vicarious
Avicularium



Coscinopleura digitata

Aplousina sp.



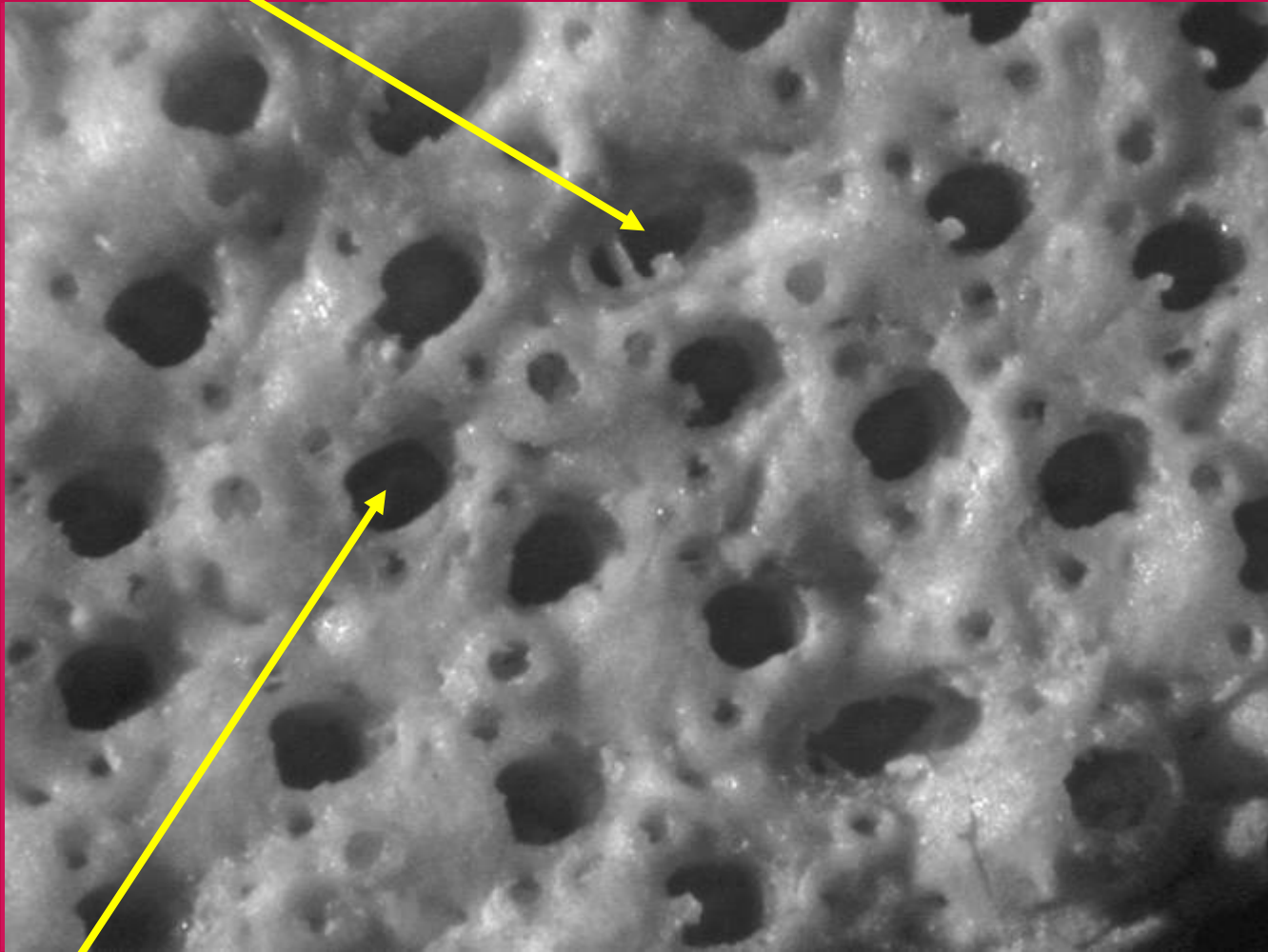


Acanthionella typica



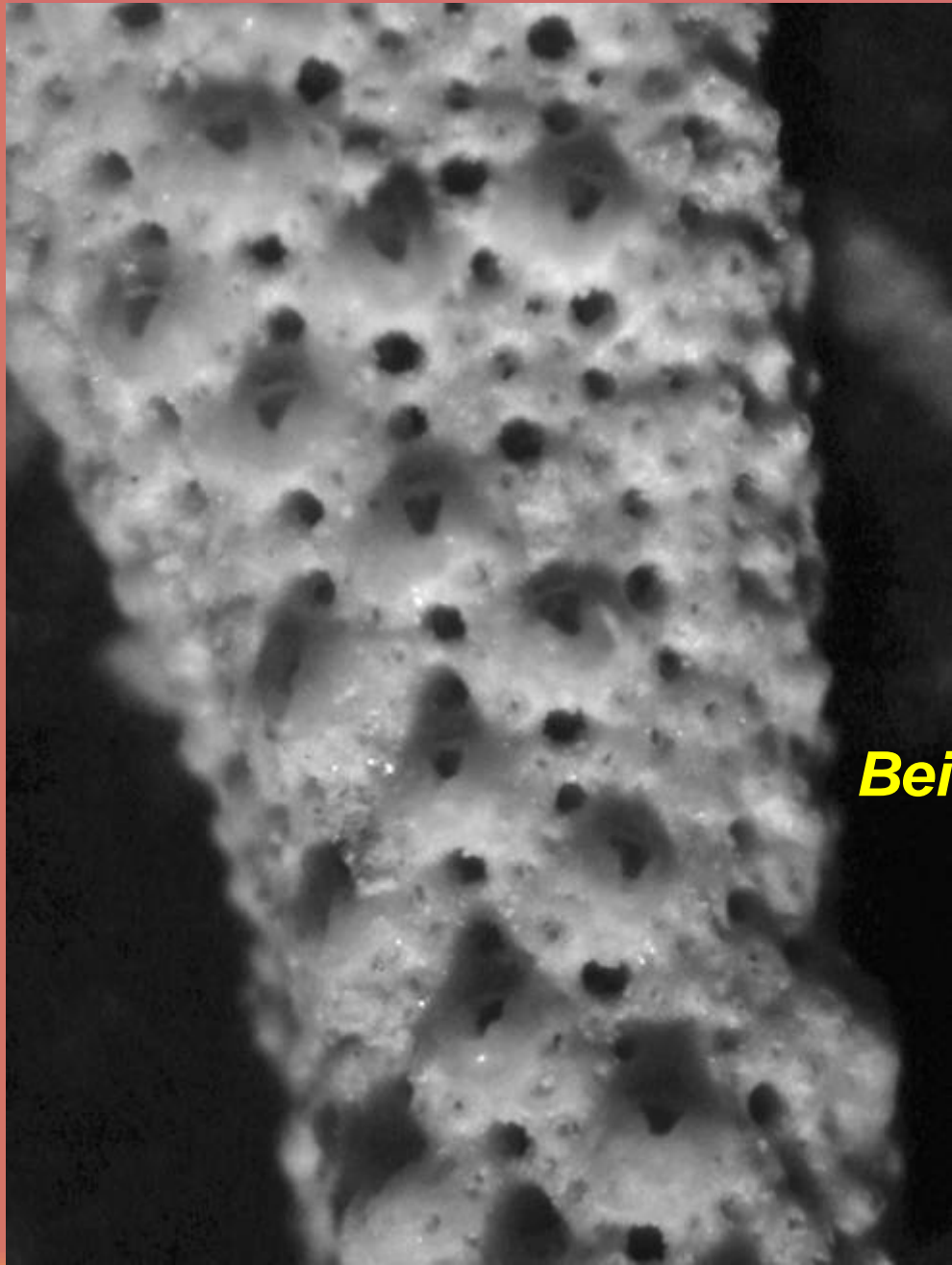
Acanthionella typica

Vicarious
Avicularia

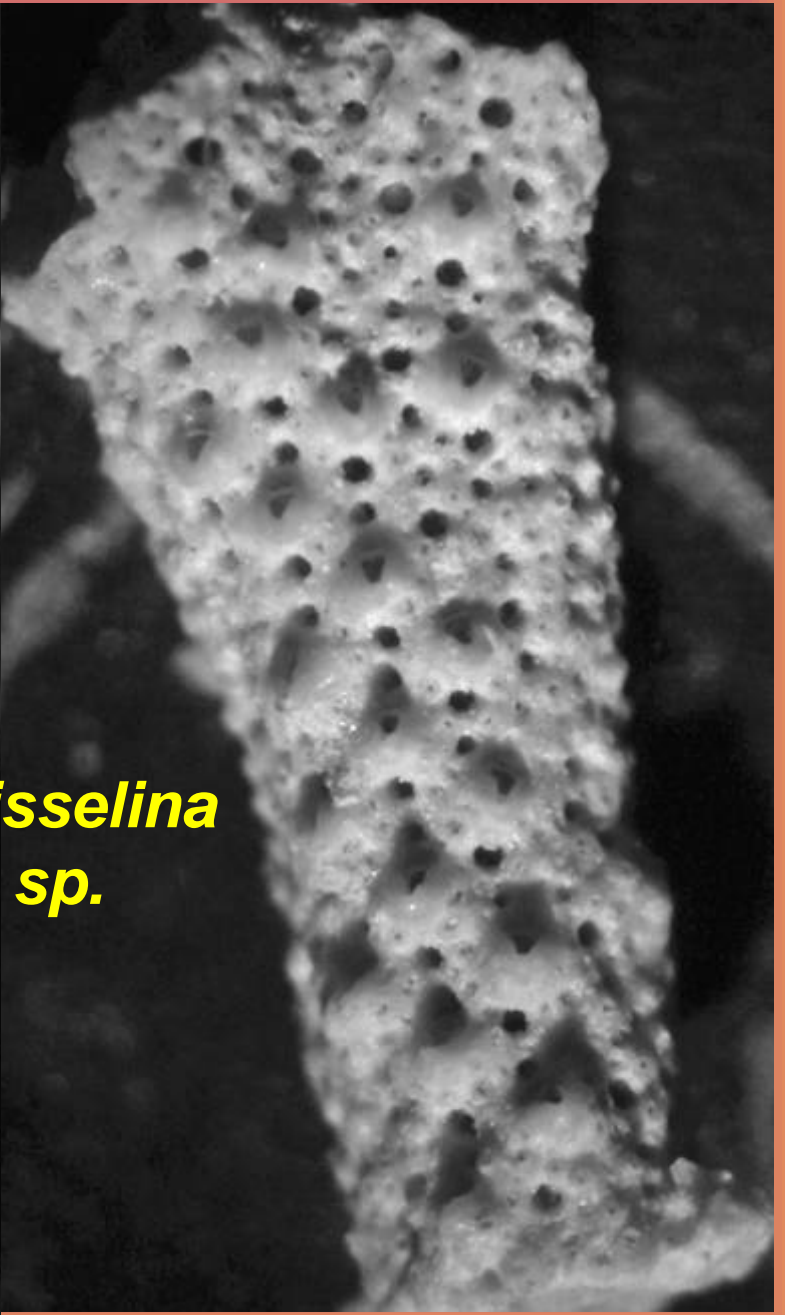


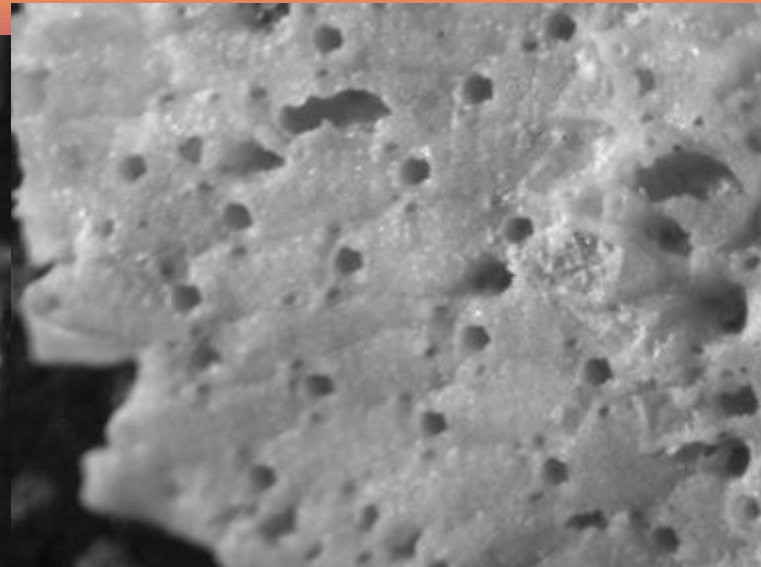
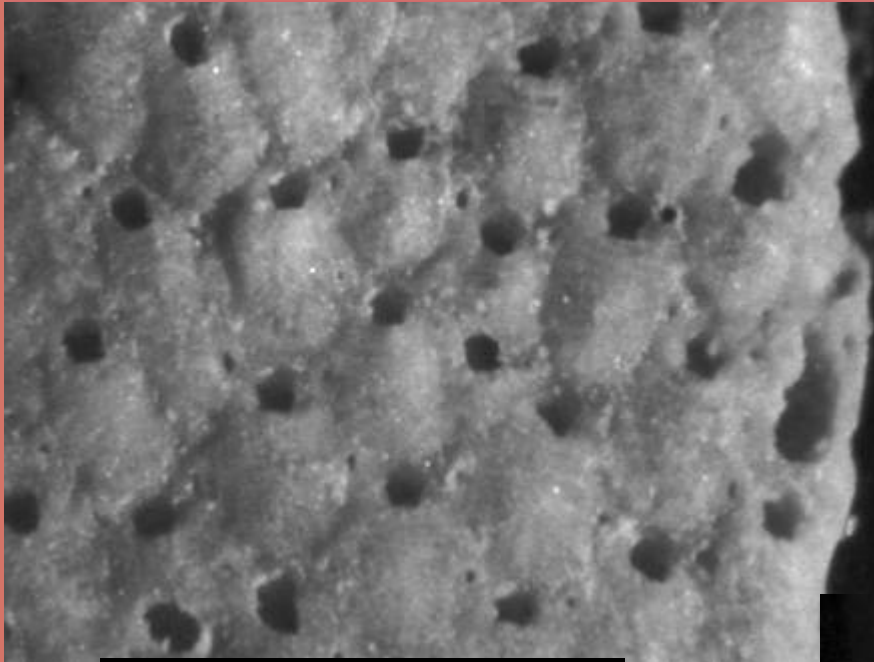
Feeding
Zooid

Acanthionella typica

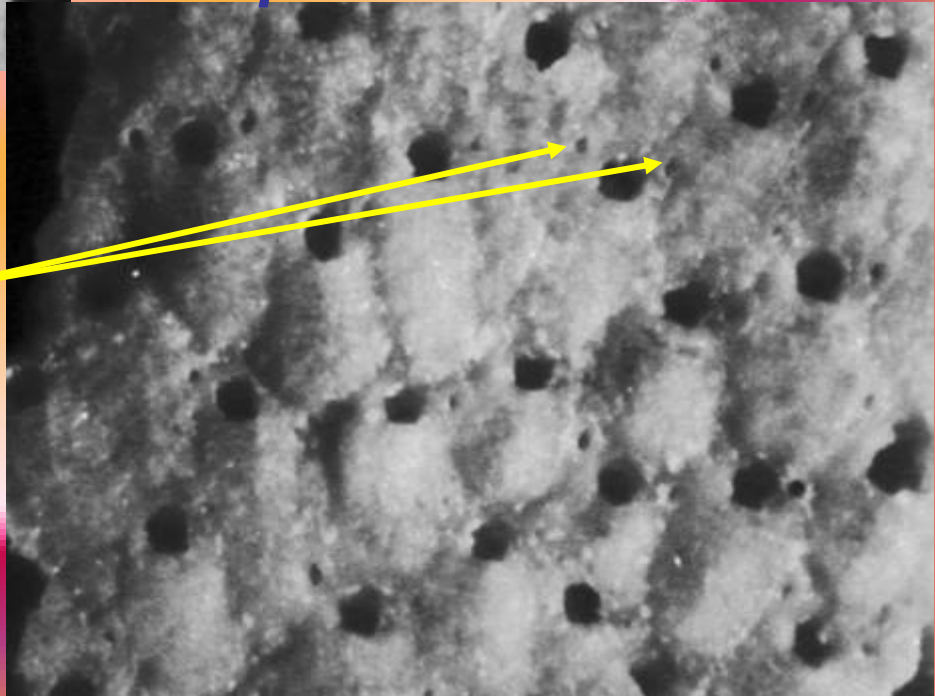


Beisselina
sp.

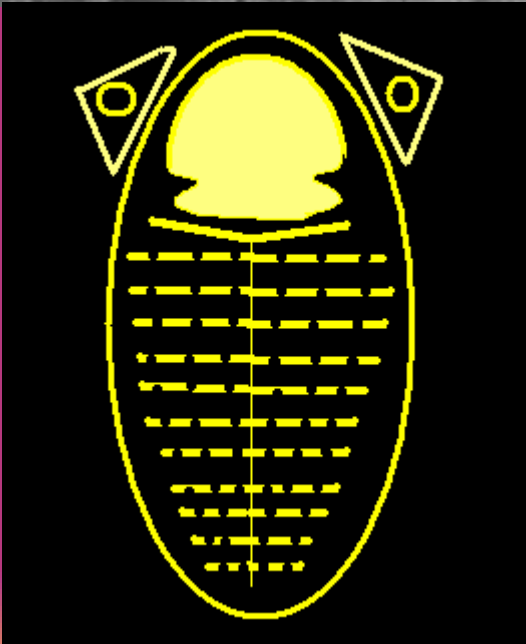




Pliophloeola ventricosa



ventitious
vicularia



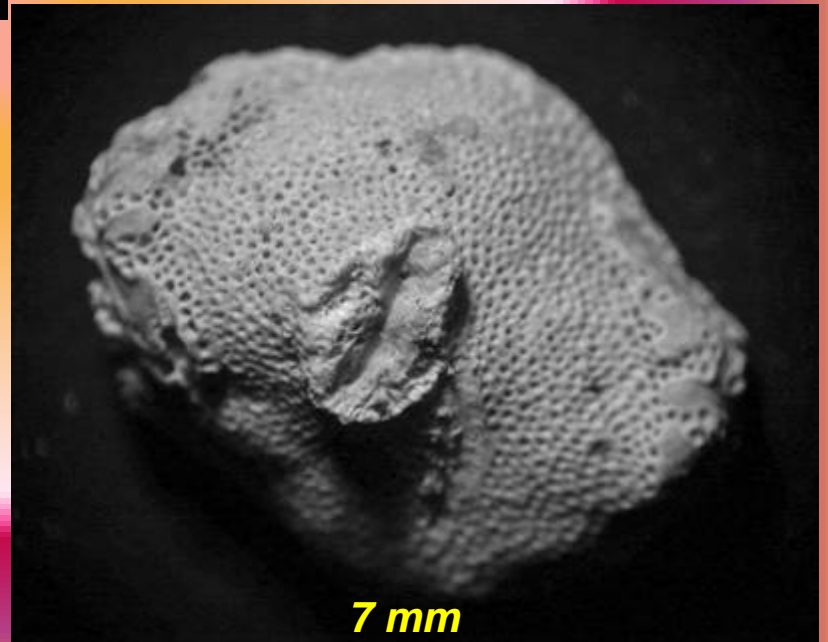


top

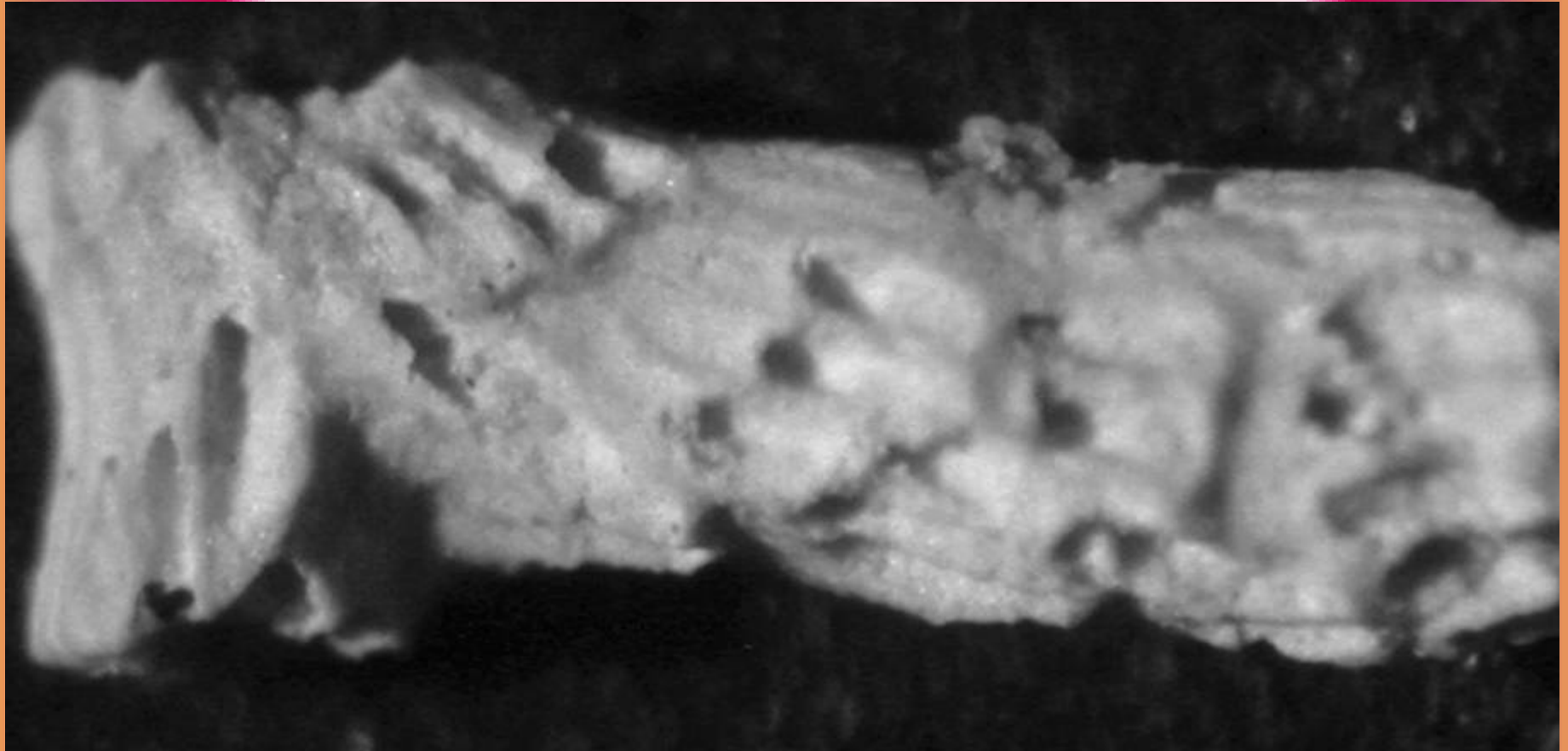
Discocytyis eccentrica

(Stenolaemata:Cyclostomata)

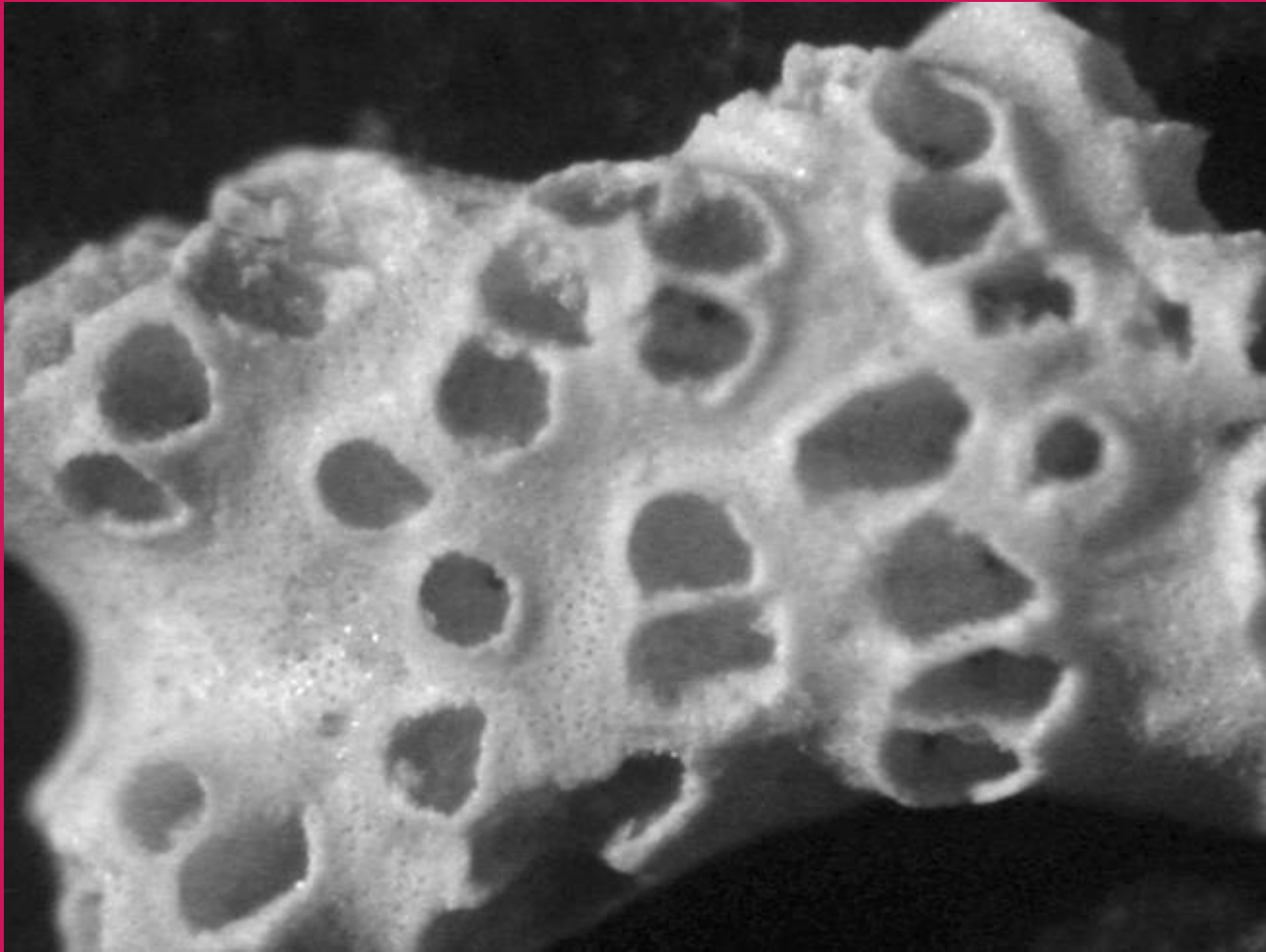
bottom



7 mm







“Crisina striatopora”

