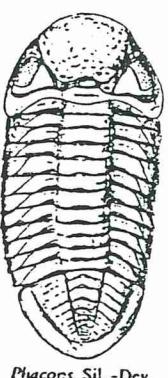
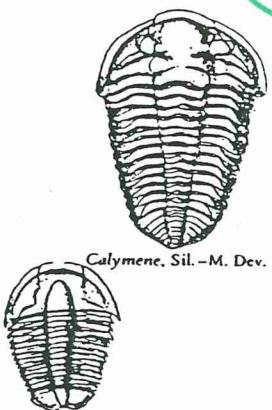


I.E.H. Ex 10 \$13
 (notes) 4 pgs (pics)

Key

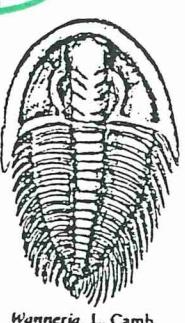


Phacops, Sil.-Dev.



Calymene, Sil.-M. Dev.

Elrathia, M. Camb.

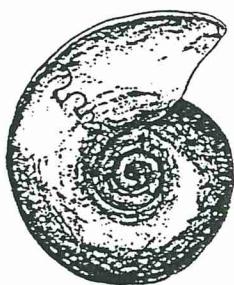


Wanneria, L. Camb.

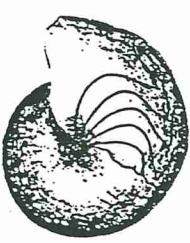
Arthropods phylum

Trilobites subname

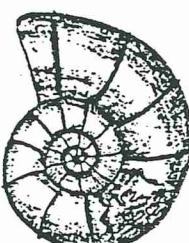
- segmented exoskeleton
- crabs, lobsters, trilobites, spiders
- *Trilobites* - Camb., Ord., Sil. rocks (abund)
- lived Camb-Pennian (Paleozoic)
- index fossils for Camb + Ord.
- trilobites extinct



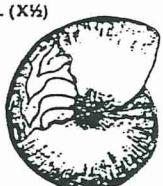
Ceratites, M. Trias. ($X\frac{1}{2}$)



Imitoceras, U. Dev.-M. Perm. ($X\frac{1}{2}$)



Lytoceras, Jur.-Cret.



Goniatites, U. Miss.



Eousinmites, Miss.-L. Perm.



Pachyteuthis, U. Jur.-L. Cret.

Mollusca

cephalopod
 (squid, octopus)

ammonoids (extinct)
 free swimming

nautiloid



Ophileta, L. Ord.



Worthenia, Miss.-M. Trias.



Loxonema, M. Ord.-Miss.



Physa, Jur.-Rec.



Coniobasis, Cret.-Rec.

Mollusca

gastropod
 (snails, slugs)



Glycimeris, Cret.-Rec.



Monotis, Trias.



Arca, Jur.-Rec.

Mollusca

Pelecypod (Bivalves)
 (clams, oysters, scallops)

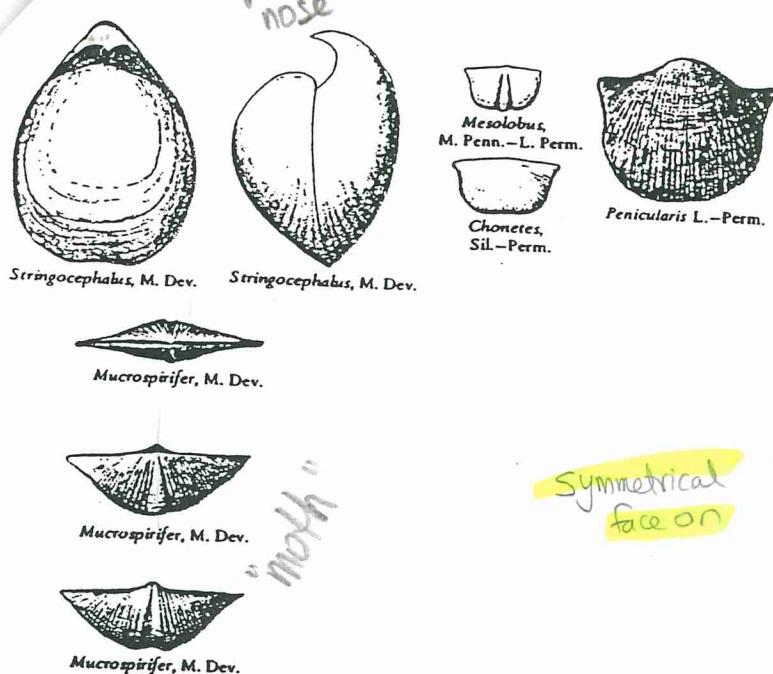
"bilateral between shells"

Mollusca: great variety in shell shapes

- marine & fresh water
- deep ocean to mt tops!
- Cambrian → recent

symmetrical edge on (pelecypod)

Brachiopod

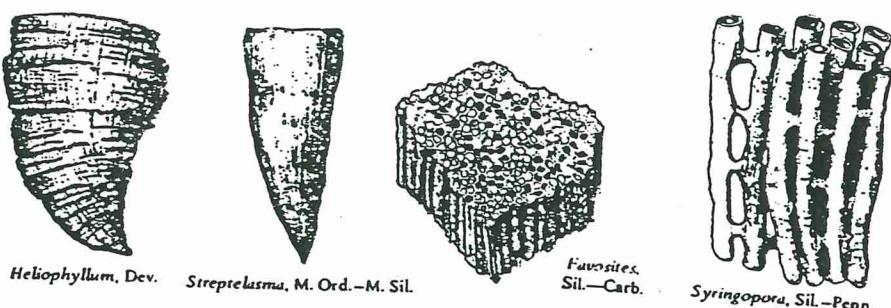


- marine invertebrates
- most abun in Paleozoic
- still a few today
- 1 in - 6 inches
- unequal valves (edge-on)
- "nose" "moth-looking"

"bilateral across shells"

pronounce: Nidaria

Coelenterata (Cnidaria)

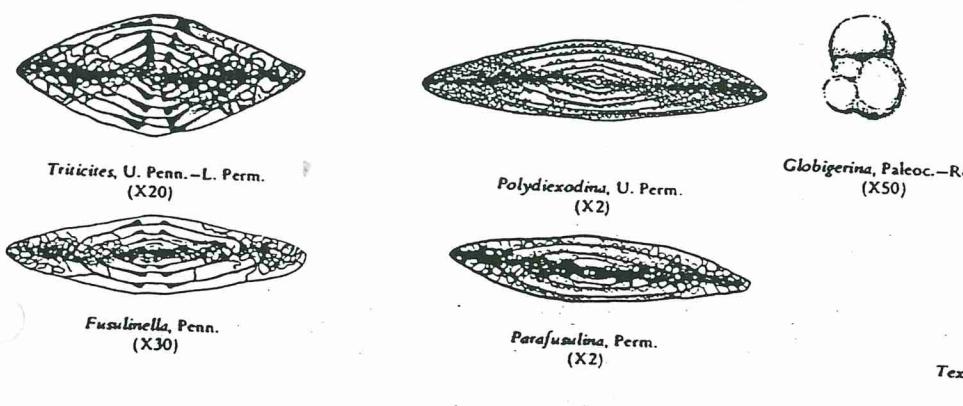


- corals
- shallow seas
- first appeared in Ord.
- still common today

↑ new name

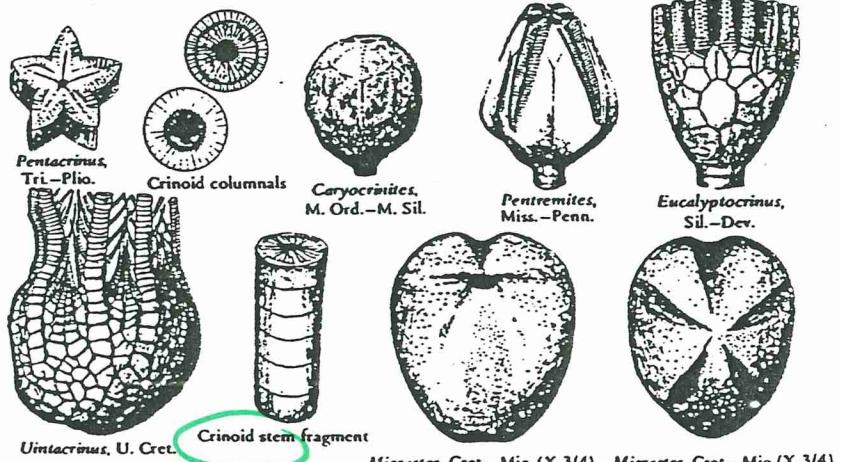
Protozoa

Foraminifera *



- marine or fresh water
- (Precamb) Camb-recent
- shells of $\text{Ca(O}_3\text{)}$
- Single celled (some are)

echinodermata

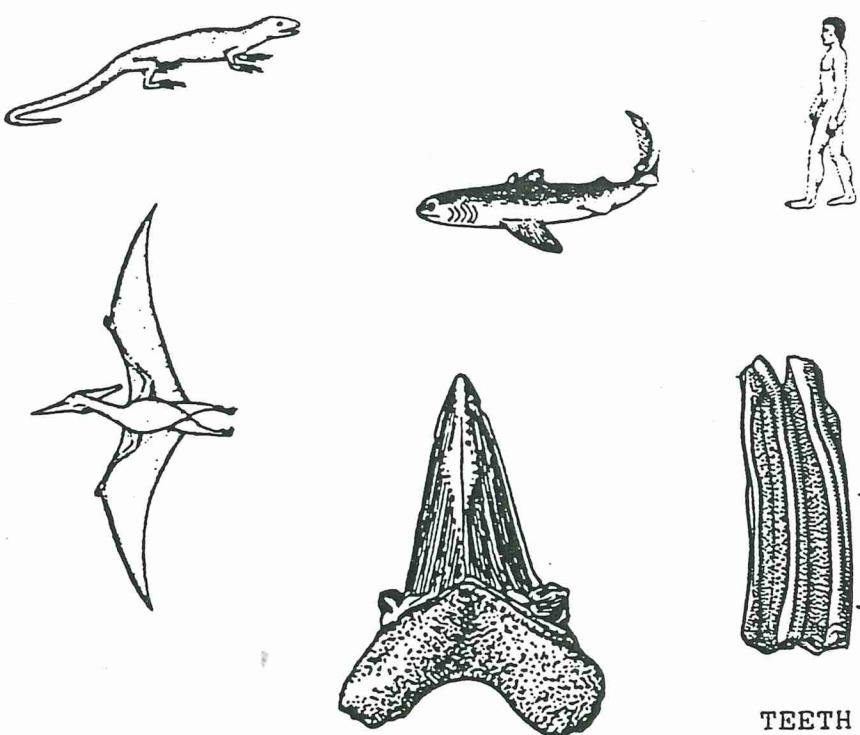


Sea lily
"crawling crinoid"

- "5 fold symmetry"
- star fish, sand dollar, sea urchin, crinoid
- marine
- more common in past
- calcite skeletons
- Camb → recent
- most common in Carb. → Tert.

Videos

Vertebrata

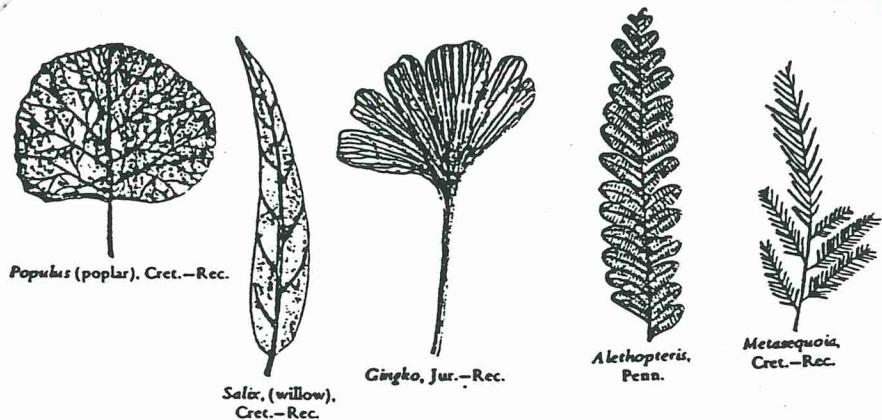


shark's tooth

TEETH
PLEISTOCENE-HORSE

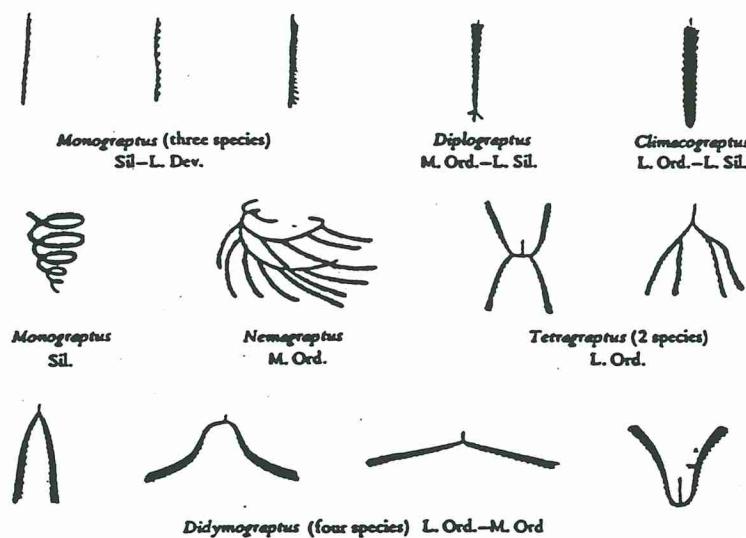
- spines
- fewer fossils since most lived on land where sediment doesn't build up as rapidly
- often shown teeth as fossil to represent this phyla
- fish developed in Ordovician, still exist

Plants



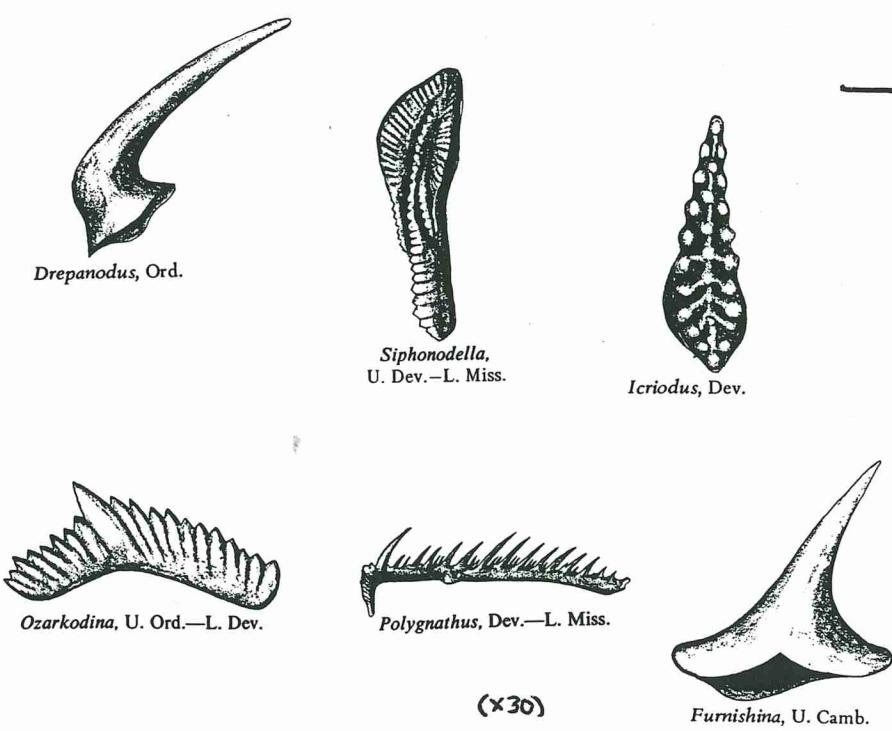
- live on land
- carbonization type of fossilization

graptolites = "writing on rocks"



- extinct
- look like pencil marks on surface of rocks
- few cm across for a colony of them
- individuals microscopic
- Ord., Sil., Dev.
- Ord. = Age of graptolites
- free floating in ocean

Conodonts



- extinct
- micro fossils
- recently established as vertebrates
- < 1mm, medium to dark brown
- Cambrian - Triassic
- most useful fossil for intercontinental correlation (good index fossil)
- marine