

# Iowa's Devonian

Geological Resources of Iowa  
University of Northern Iowa &  
The Iowa Limestone Producers Association

# Devonian - A Marine Extravaganza 😊

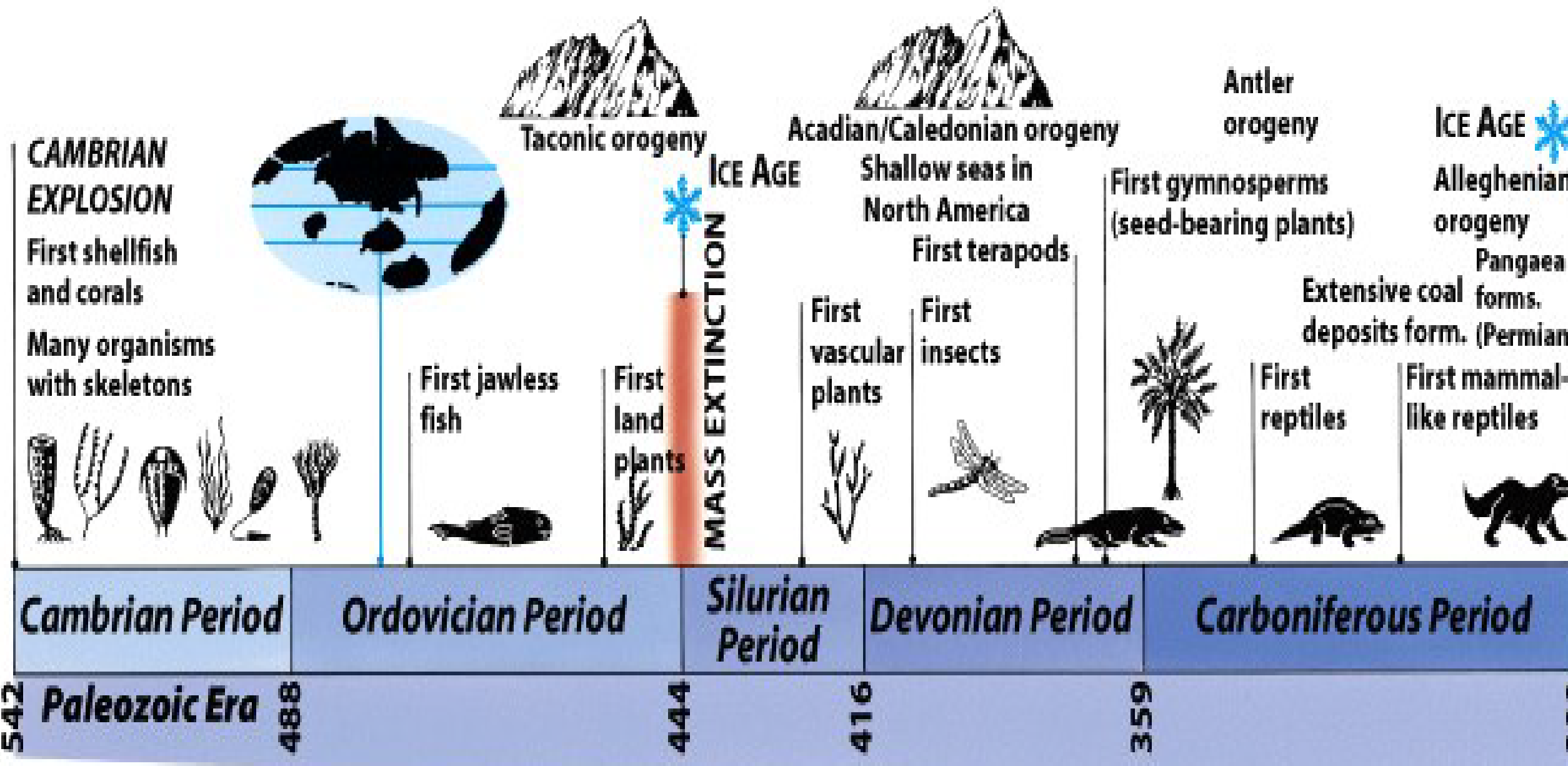
358 Ma  
To  
419 Ma

- 13 formations.
- Economically valuable resources
  - road and concrete aggregate from eastern Iowa
  - Gypsum mined southeastern and north-central Iowa (Portland Cement)

# Devonian - A Marine Extravaganza 😊

358 Ma  
to  
419 Ma

- An important aquifer/water source for eastern and north-central Iowa.
- Formations contain significant and well preserved fossils



542

488

444

416

359

299

**Paleozoic Era**

**Cambrian Period**

**Ordovician Period**

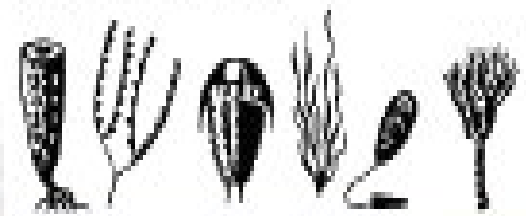
**Silurian Period**

**Devonian Period**

**Carboniferous Period**

**CAMBRIAN EXPLOSION**

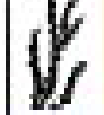
First shellfish and corals  
Many organisms with skeletons



First jawless fish



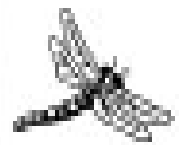
First land plants



First vascular plants

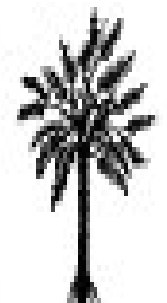


First insects



First tetrapods

First gymnosperms (seed-bearing plants)



First reptiles



First mammal-like reptiles



Taconic orogeny



Acadian/Caledonian orogeny

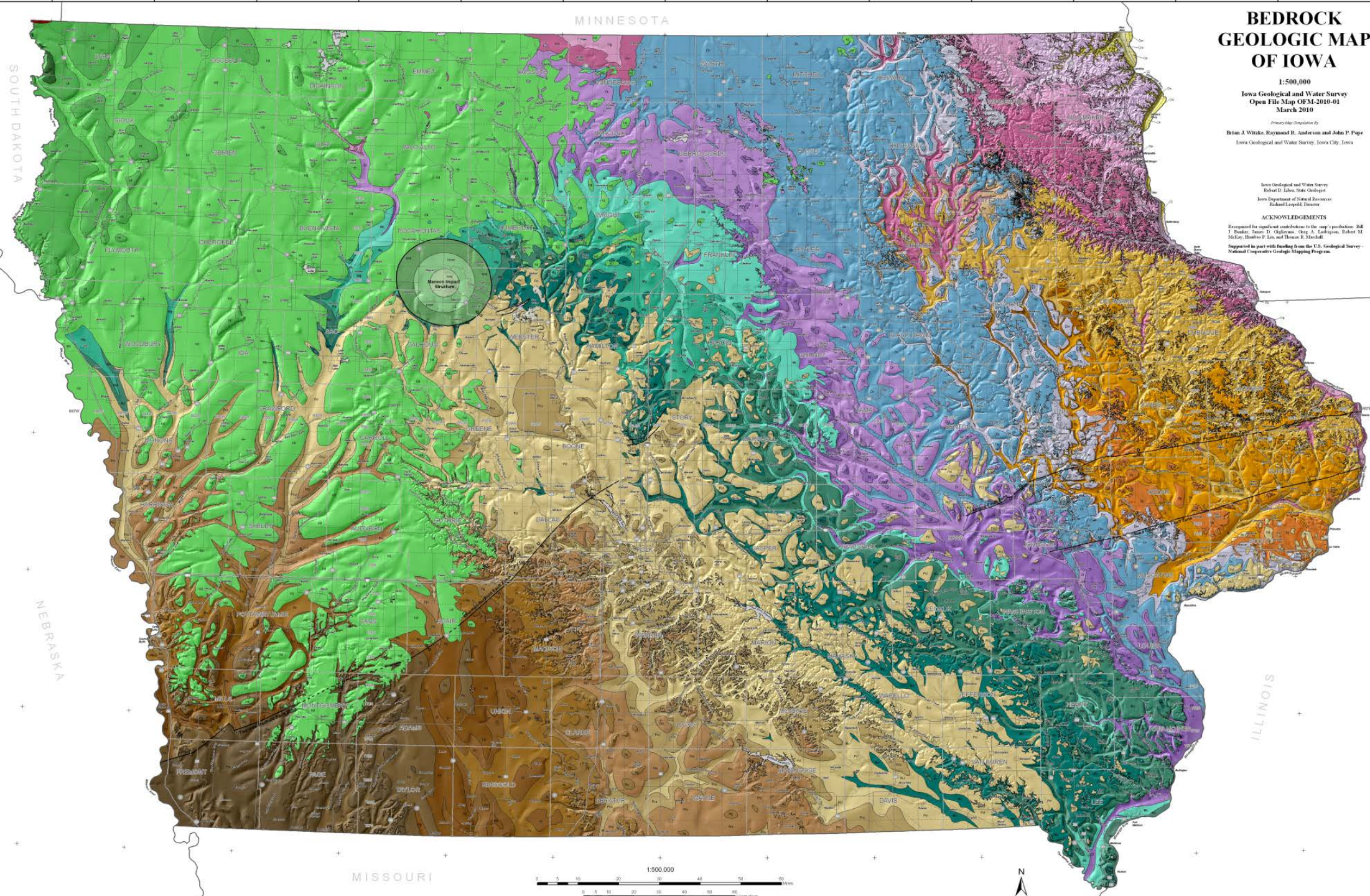
Antler orogeny

ICE AGE ❄️

Alleghenian orogeny

Pangaea forms.

Extensive coal deposits form. (Permian)



# BEDROCK GEOLOGIC MAP OF IOWA

1:500,000  
Iowa Geological and Water Survey  
Open File Map OFM-2010-01  
March 2010

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358 Ma  
to  
419 Ma

MISSOURI



ILLINOIS

NEBRASKA

SOUTH DAKOTA

MINNESOTA

Group

Formation

Rock type

EOD

Yellow  
Spring

Lime Creek  
7

Shale - Lms

Upper  
Cedar  
Valley

Shell Rock  
6  
Lithograph  
City  
5

Fossiliferous  
Lms - Dls

Lms to shale

Lower  
Cedar  
Valley

Coralville  
4  
Little Cedar  
3

Lms, Dls, shale

Lms - Dls  
sandy

Wapsipinicon

Pinicon  
Ridge  
2  
Spillvill-  
Otis  
1

Lms, Dls

Dls, Lms

Bertram

Dolostone (Dls)

# Devonian formations

358 Ma  
to  
419 Ma

Little Cedar Fm.

Coralville Fm.



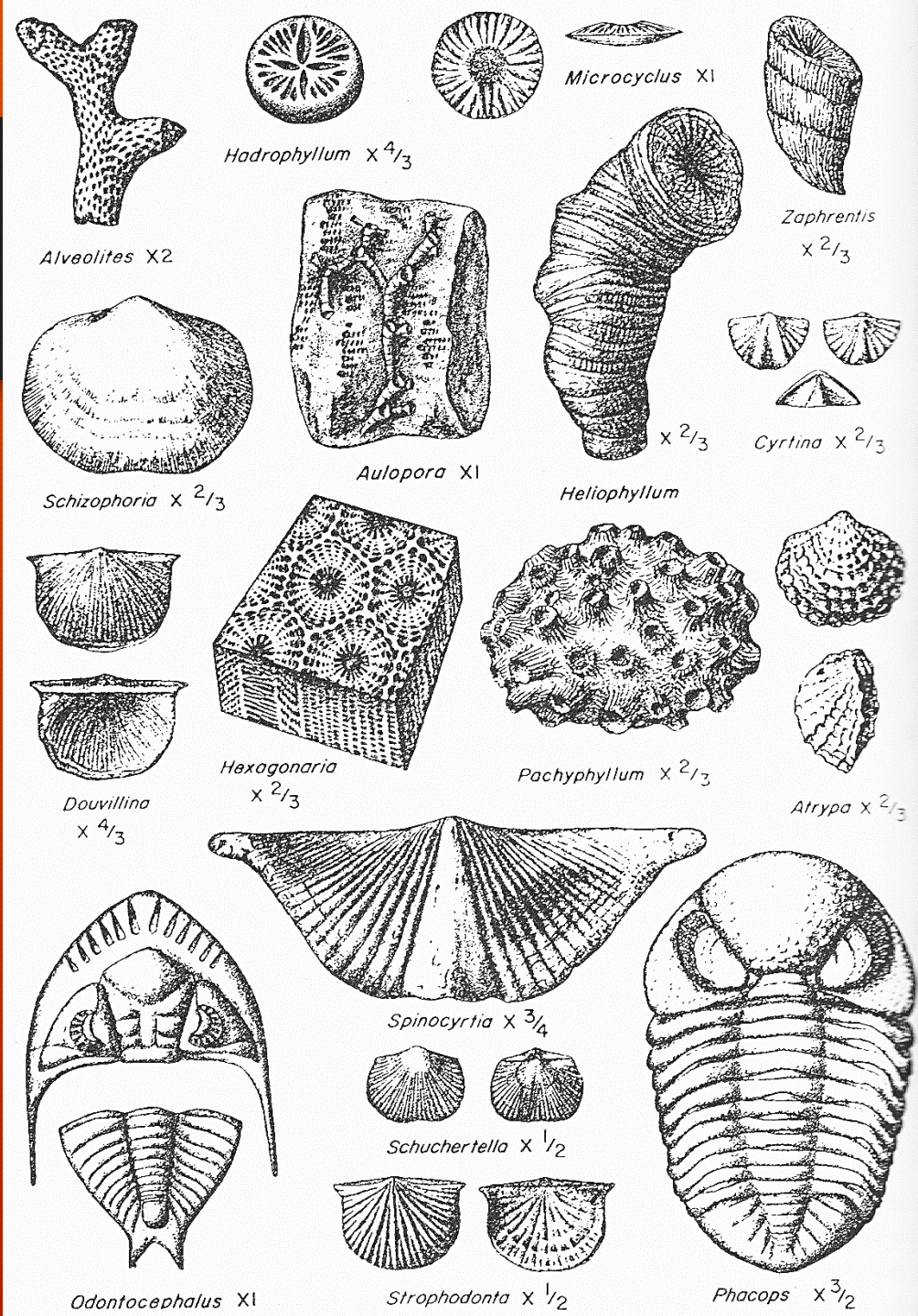
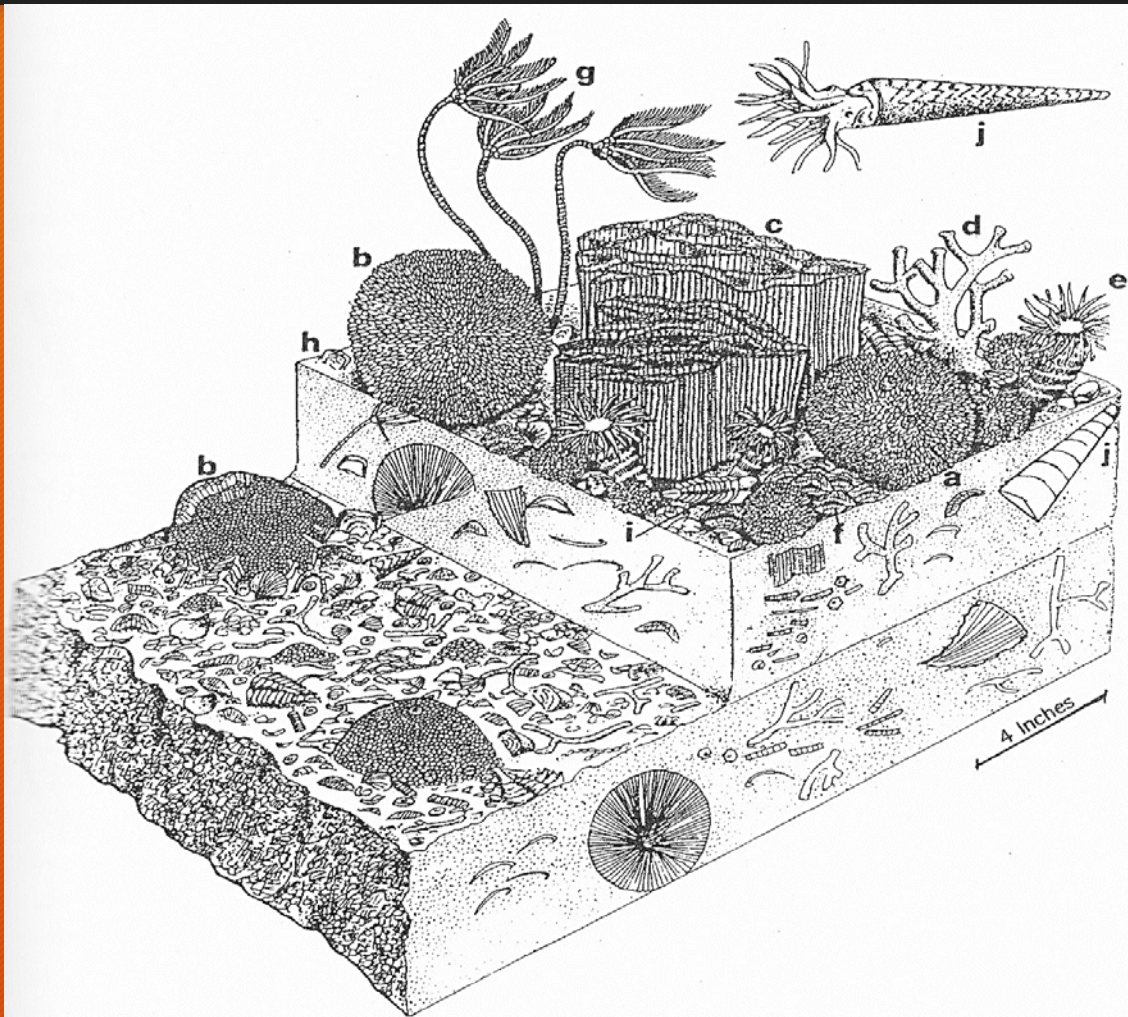
# Lithograph City Formation

- An extremely fine grained / pure limestone
- Used for Lithography in the early 1900. Lithography City - Floyd-Mitchell county line
- Quarried extensively for road and concrete aggregate as well as Portland Cement

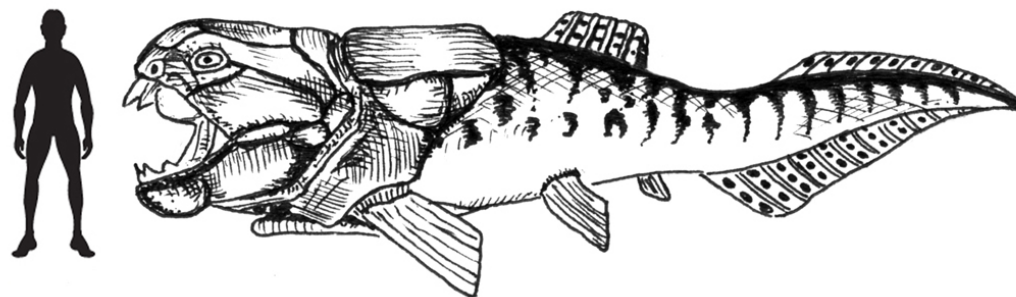
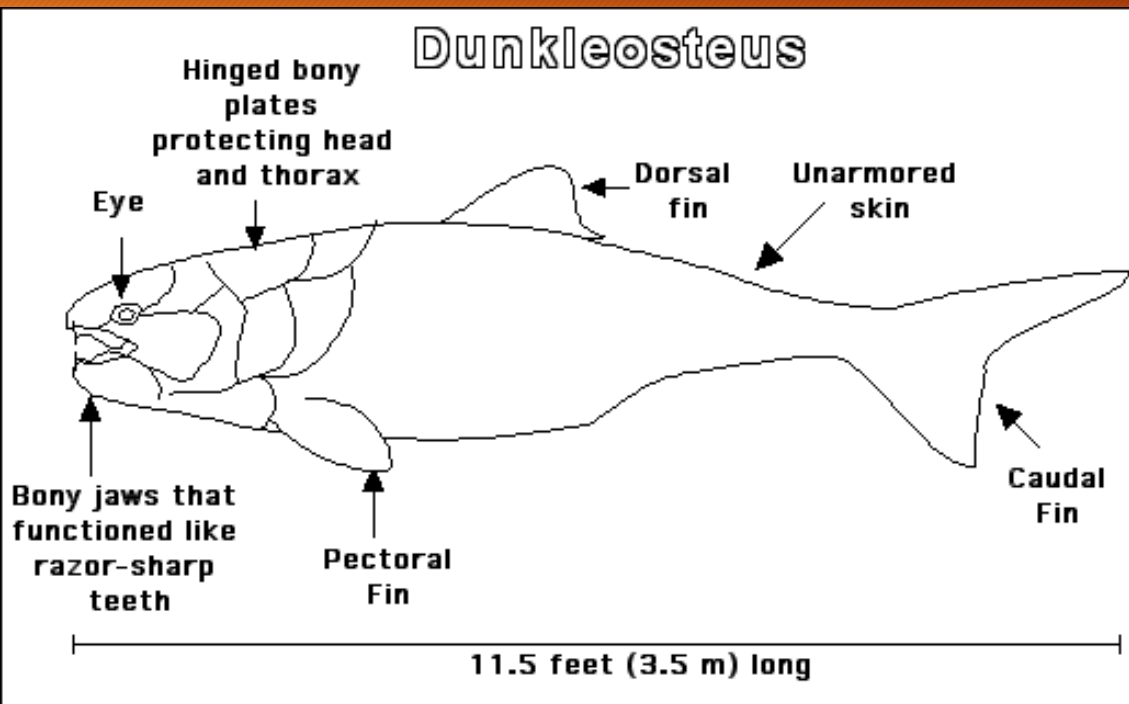
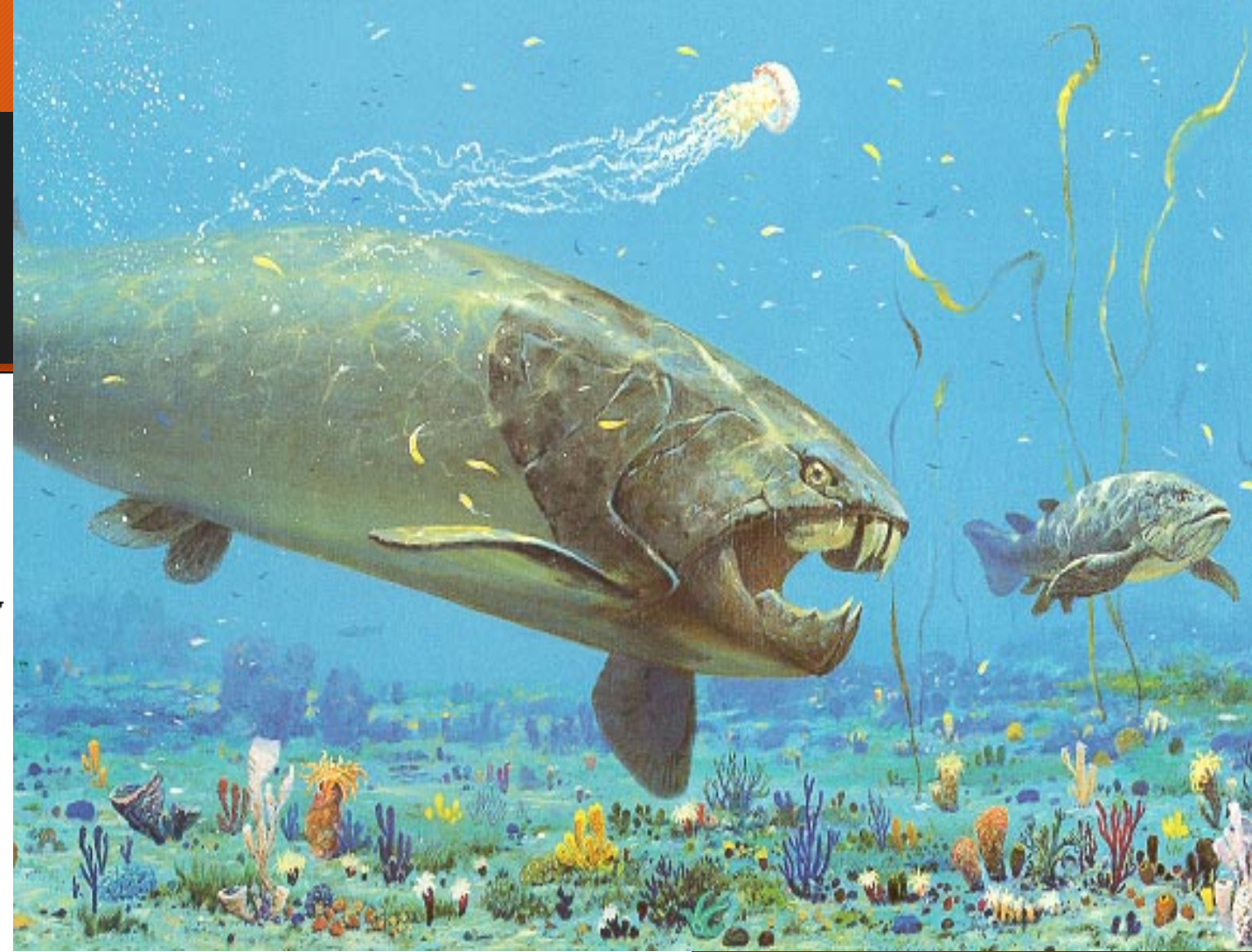


Shell Rock Fm.

# Devonian Life - biostromes



# Devonian Life



# Devonian Life - via the Devonian Fossil Gorge

