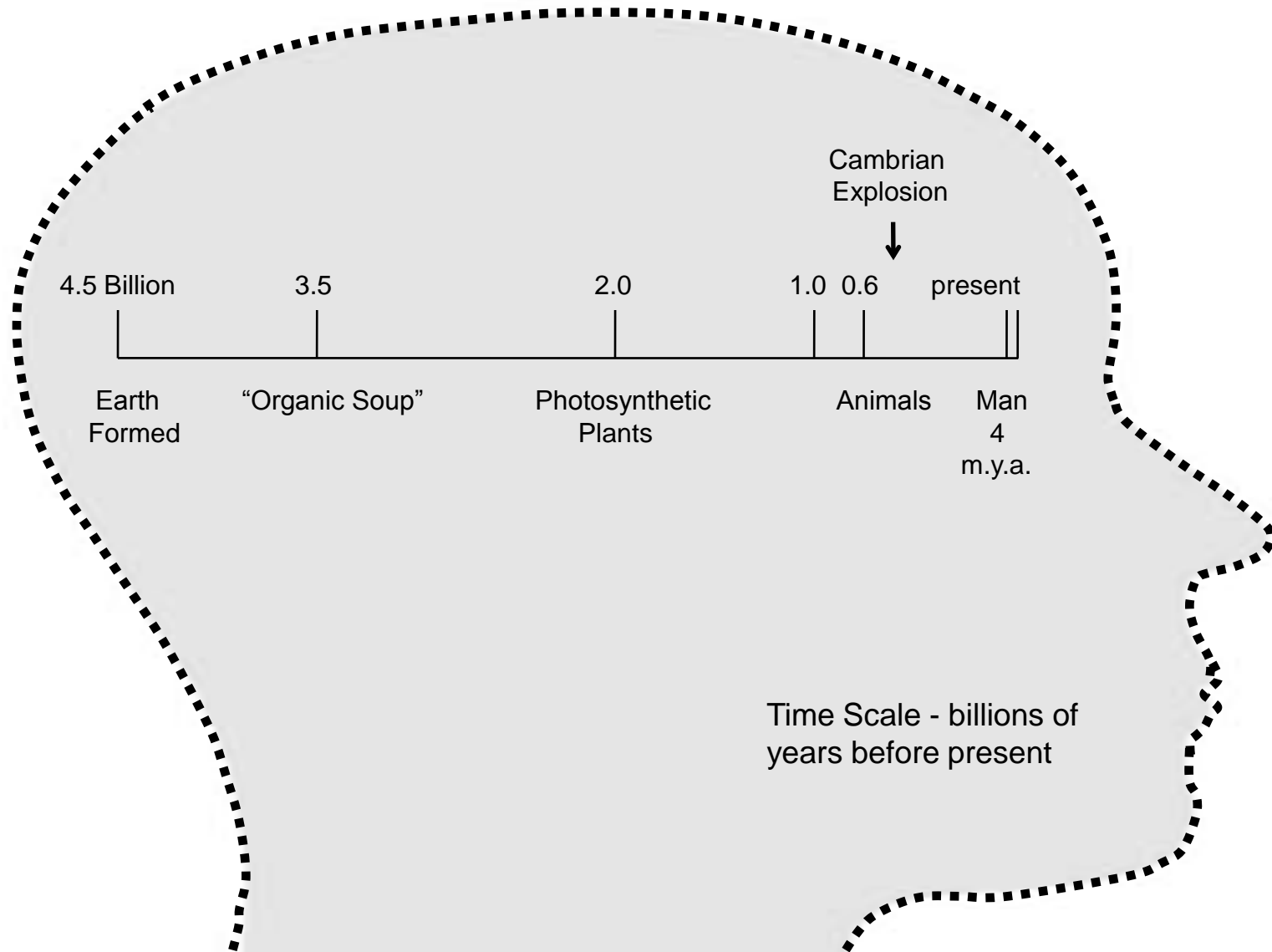


# Fossils: The Hard Evidence

Gerald Lenner, Ph.D.  
March 19, 2010

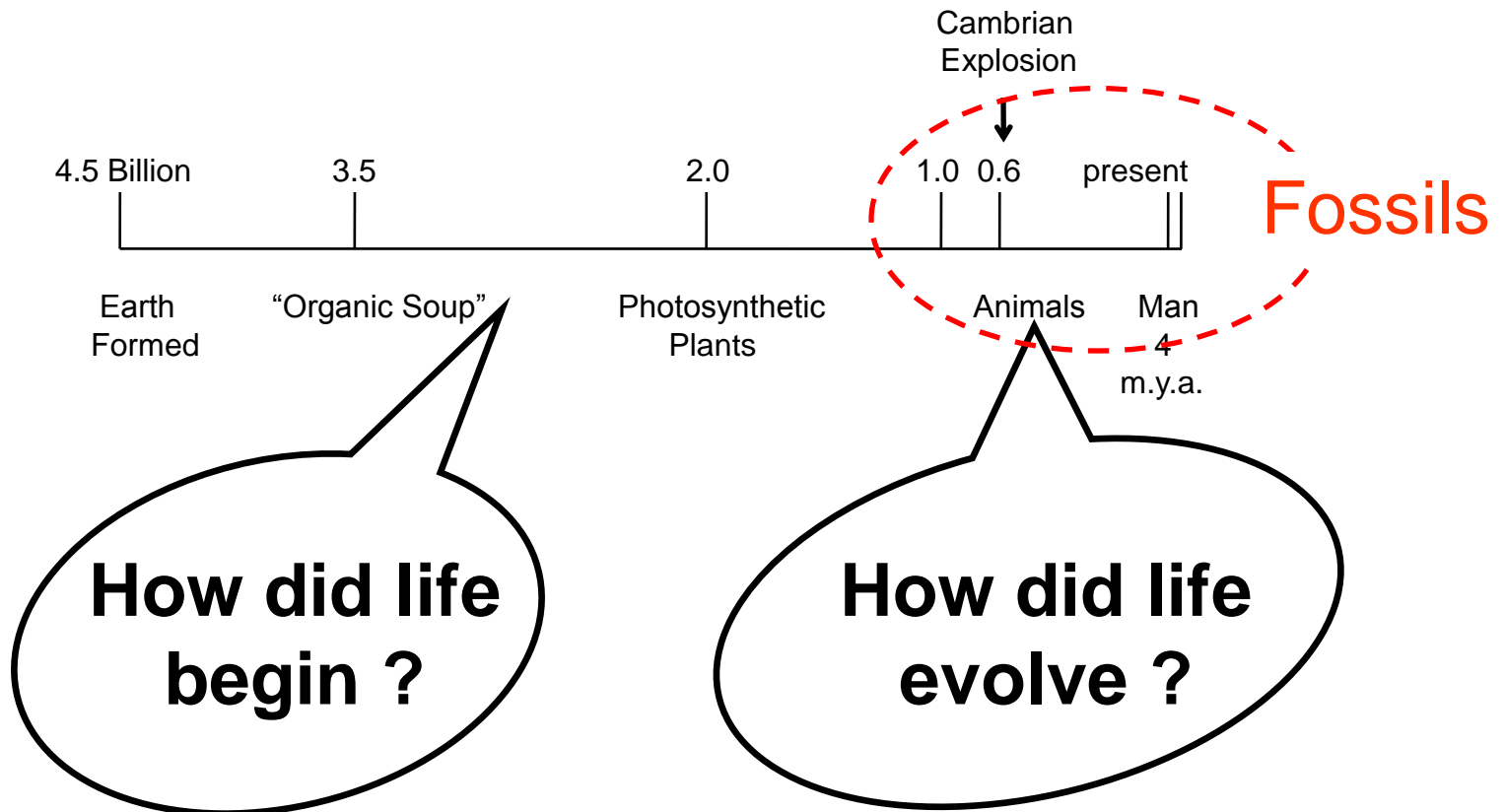
# Talk Outline

- Fossil Display
- Typical Fossil Formation
- Gaps in the Fossil Record
- Geologic Column
- Human Origins
- Summary



Time Scale - billions of years before present

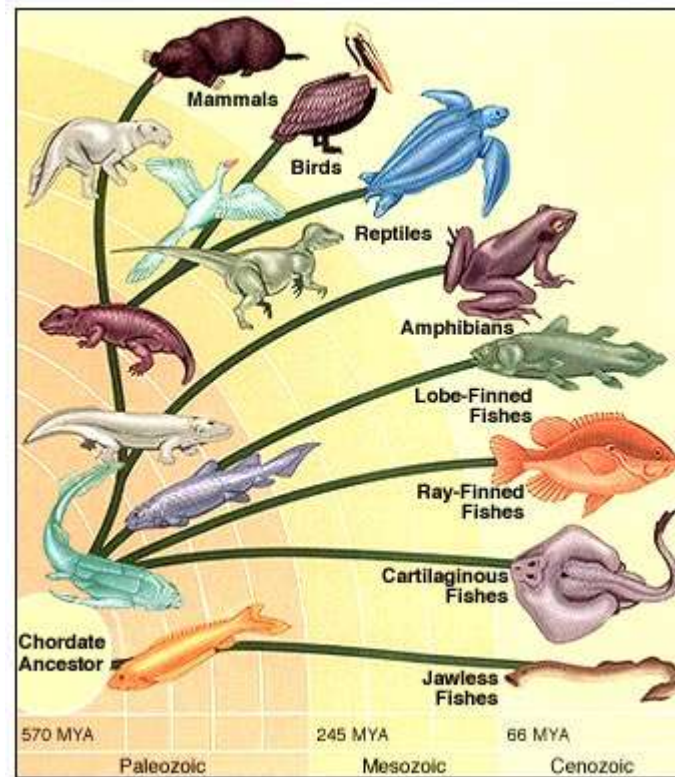
# Evidence ? Experimental Proof ?

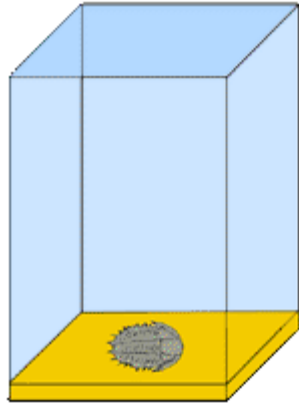


# Theoretical Evolution of Man

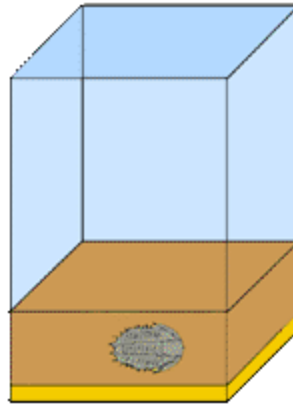
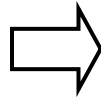


Theoretical evolutionary flow chart

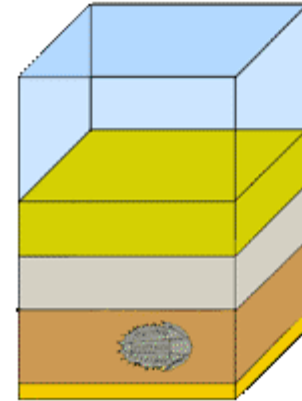
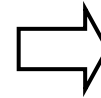




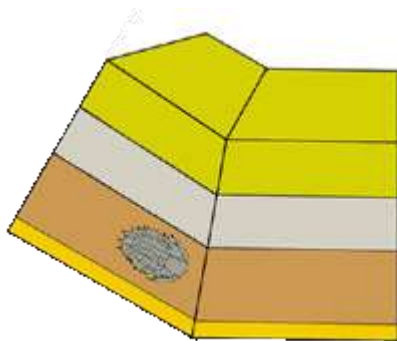
**Death**



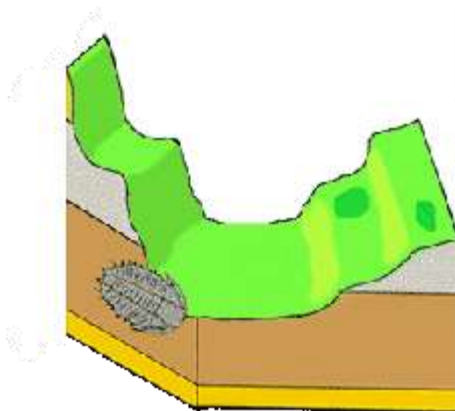
**Sedimentation**



**Permineralization**



**Uplift**



**Erosion**

Fossil Record	
Types	Approx. %
Marine creatures (clams, corals, trilobites, etc). Mostly invertebrates with a hard outer surface.	95 %
Plants	4 %
Land animals. Reptiles, amphibians, mammals, birds, dinosaurs, and humans.	1 %



**Trapped in Amber**



**Petrified**



**Embalmed (Tar and Sand)**



**Mummified Moa Foot (Flightless Bird)**

**Frozen Hair**



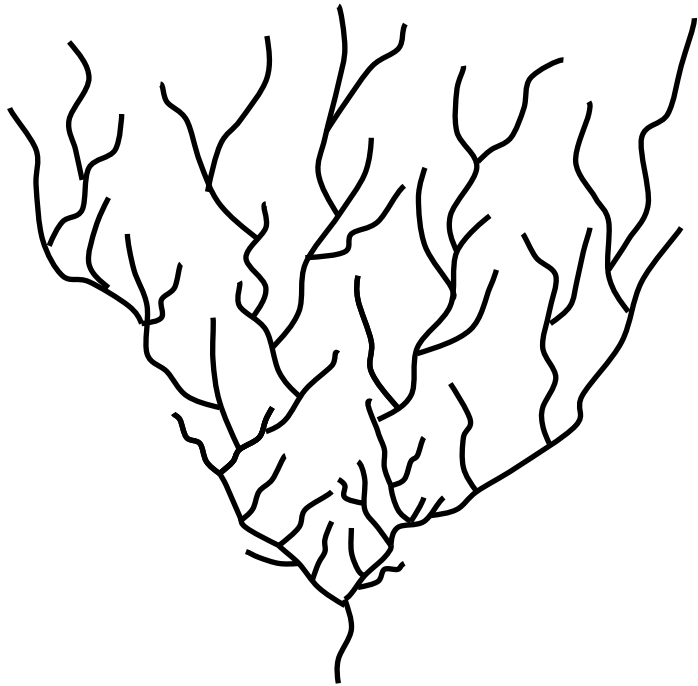
# Gaps in the Fossil Record

also known as

# Missing Transitional Forms

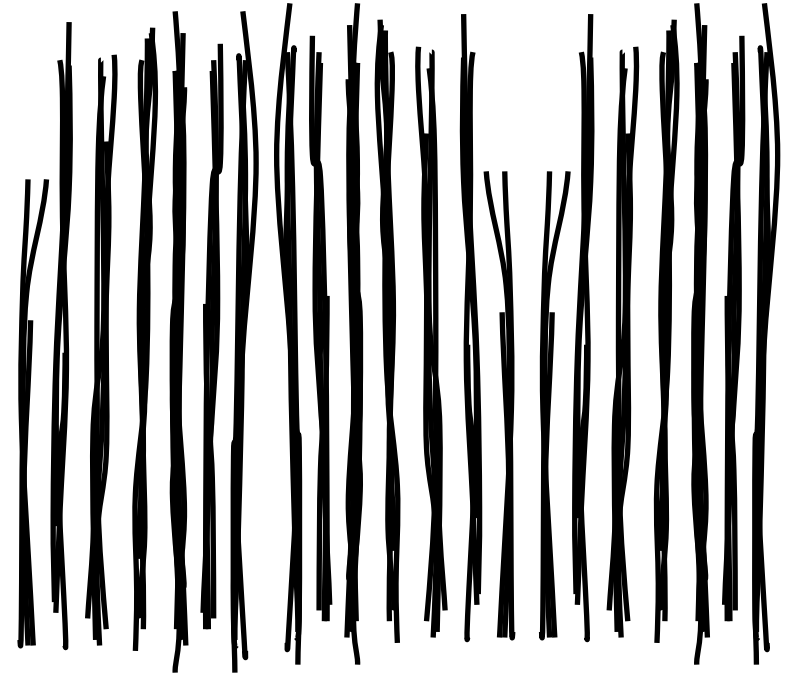


## Evolution



↔  
Morphology

## Creation

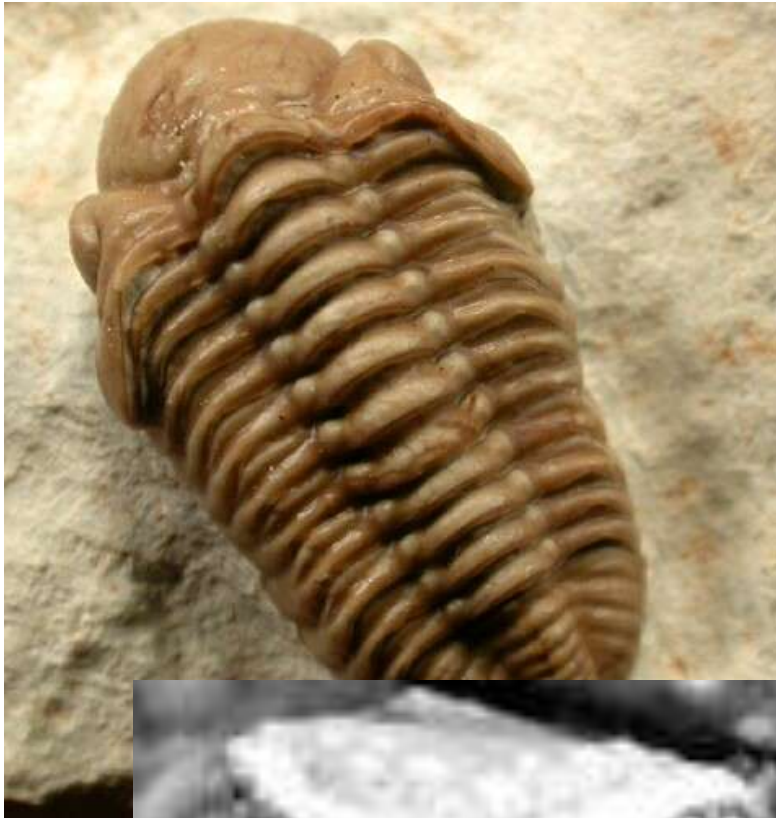


↔  
Morphology

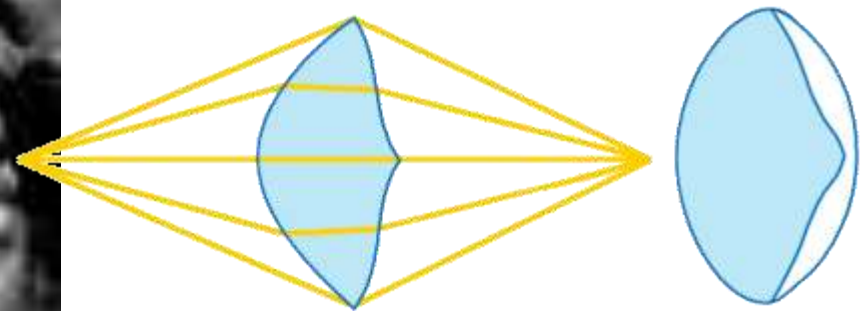
↑  
Time

**Fossils provide key physical evidence for Evolution & Creation models.**





Trilobites

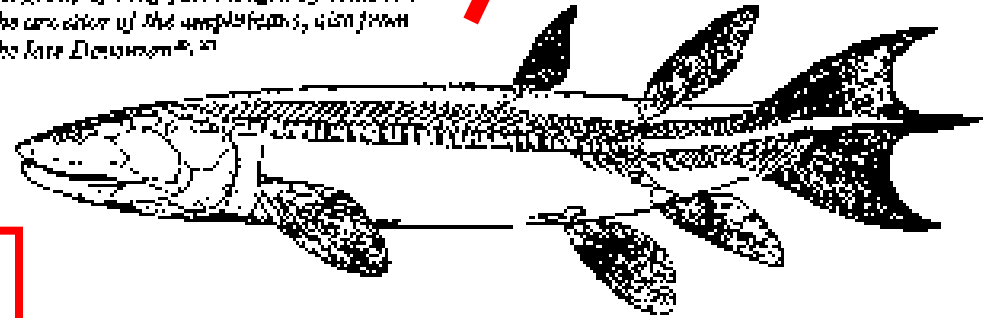


**Amphibian**



*Ichthyostega*, one of the earliest amphibians from the late Devonian. (from Jarvik)<sup>10</sup>

*Eusthenopteron* (from Gregory and Bevan)<sup>11</sup>, a representative of the *Neopterygia*, the group of bony fish thought by some to be the ancestor of the amphibians, also from the late Devonian.<sup>12</sup>

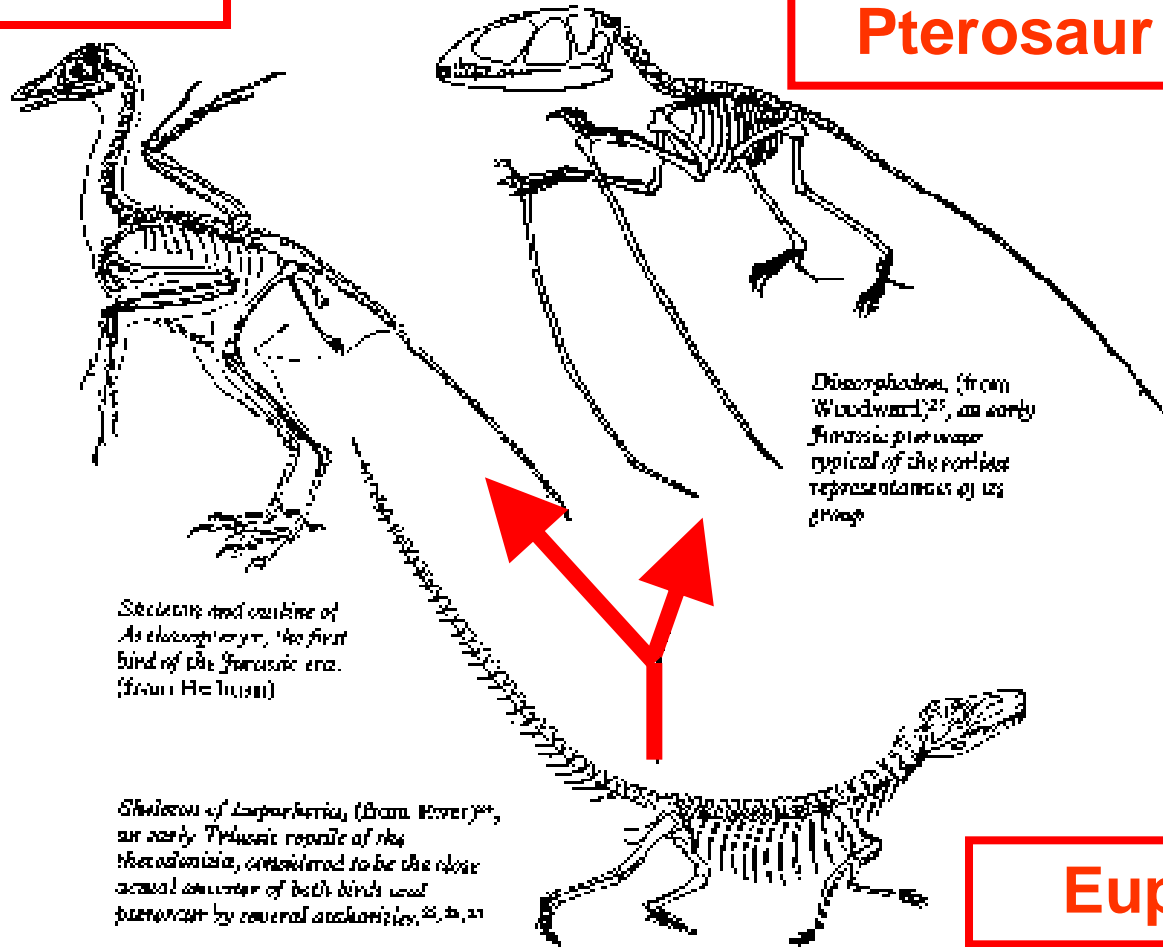


**Fish**

Figure 8.2a: The earliest known amphibian alongside a *Neopterygian* fish.

**Bird**

**Flying Reptile  
Pterosaur (extinct)**



*Skeleton and outline of Archaeopteryx, the first bird of the Jurassic era. (from Heilmann)*

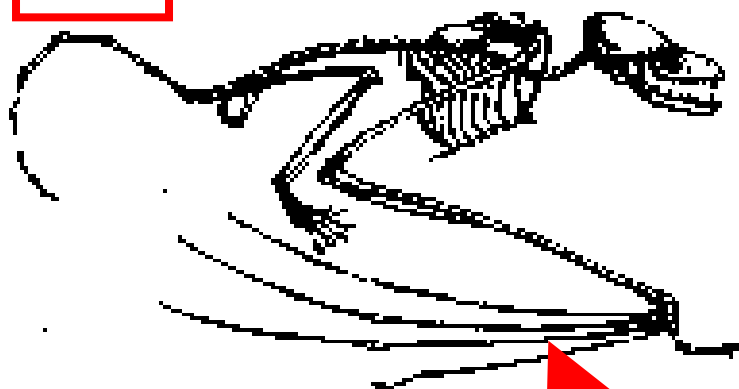
*Dimorphodon, (from Woodward)<sup>25</sup>, an early Jurassic pterosaur typical of the earliest representatives of its group*

*Skeleton of Euparkeria, (from Huxley)<sup>24</sup>, an early Triassic reptile of the Mesozoic era, considered to be the closest actual ancestor of both birds and pterosaurs by several authorities.<sup>26, 27, 28</sup>*

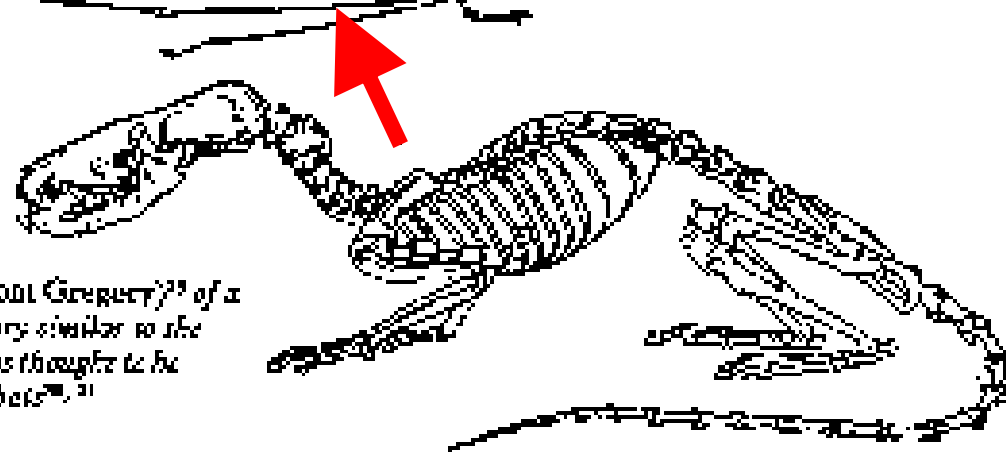
**Euparkeria**

Figure 8.2b: The first bird, an early Pterosaur and their closest non-avian relative.

**Bat**



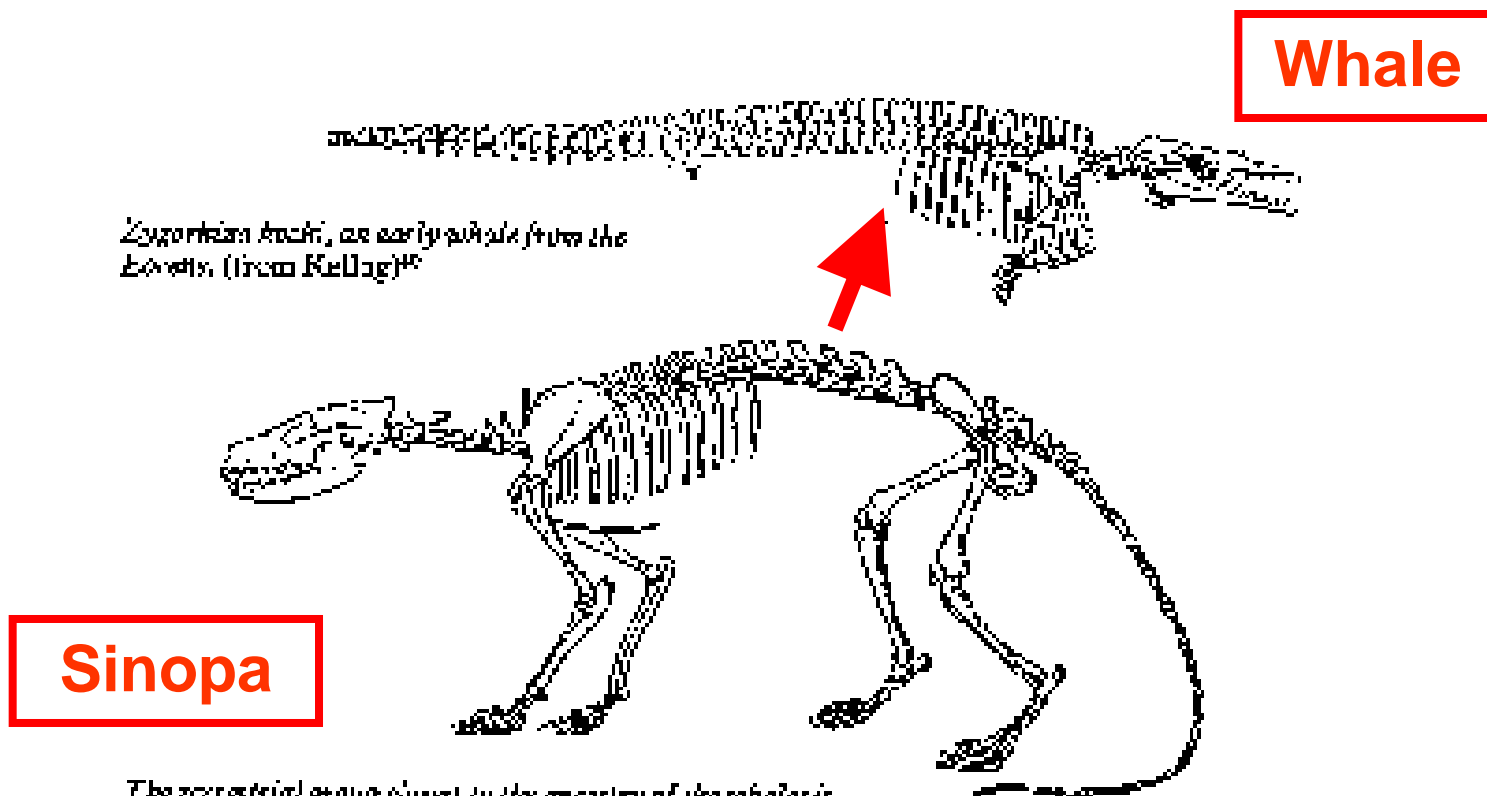
*The skeleton of the first bat  
Icaronycteris of the Eocene. (From  
Jepsen)<sup>29</sup>*



*The skeleton (from Gregory)<sup>30</sup> of a  
modern shrew is very similar to the  
early insectivore thought to be  
ancestral to the bats.<sup>31</sup>*

**Shrew**

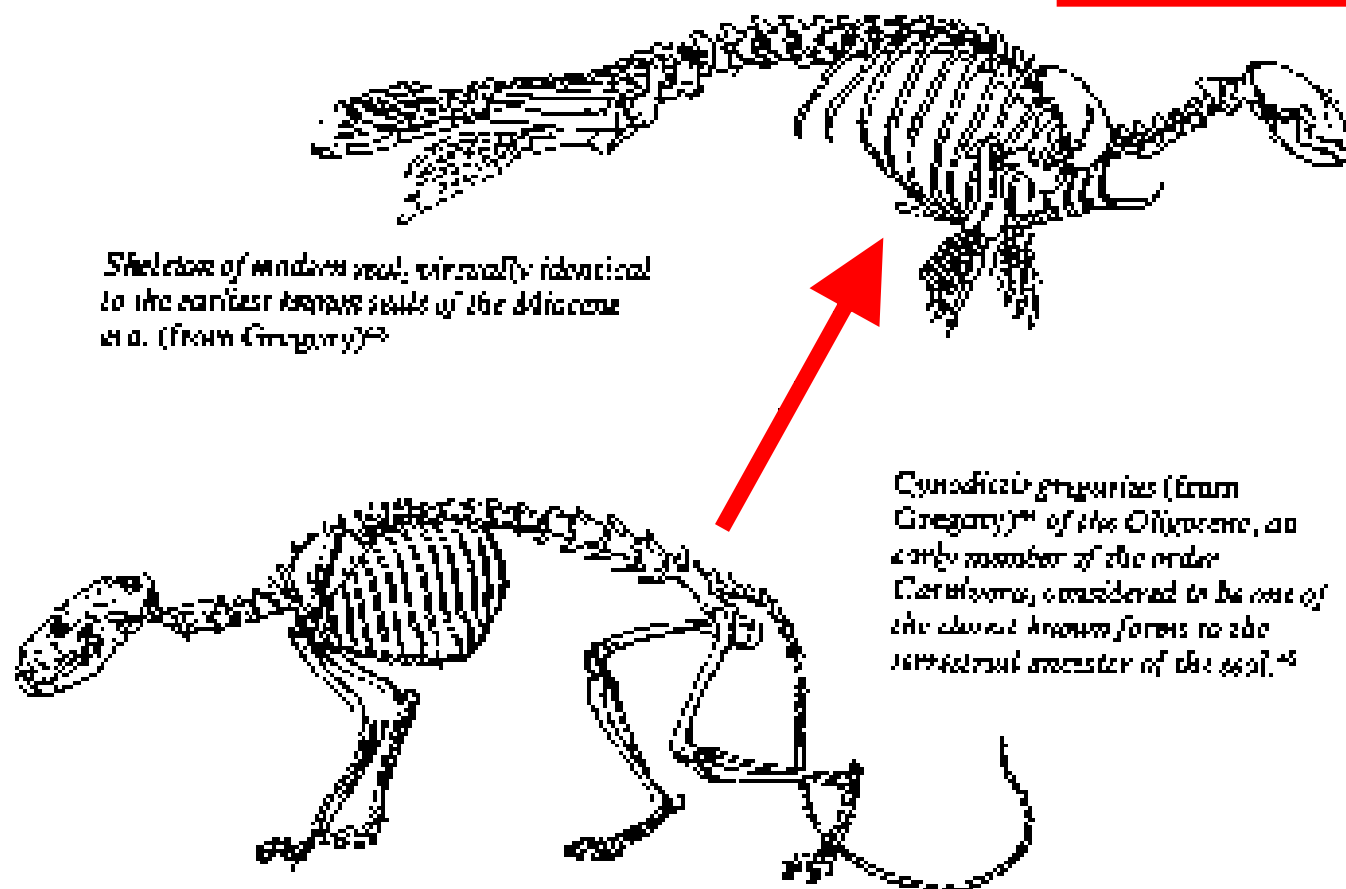
**Figure 8.2c:** *The skeleton of the first bat alongside that of a small non-volant mammal.*



*The terrestrial primate closest to the ancestry of the whales is considered to be Sinopa. Some authorities have mentioned the creodonta,<sup>41</sup> a group of early carnivorous mammals, as being possibly ancestral to the whales. A typical example of a creodont is Sinopa, shown here from the Inner Africa.<sup>42</sup>*

**Figure 8.2f: An early whale and one of its nearest terrestrial relatives.**

**Seal**



*Skeleton of modern seal, virtually identical to the earliest known seals of the Eocene et al. (from Gregory)<sup>43</sup>*

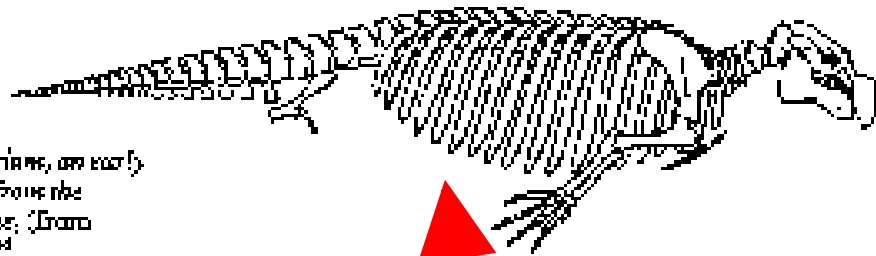
*Cynodictis gregarius (from Gregory)<sup>44</sup> of the Oligocene, an early member of the order Carnivora, considered to be one of the closest known forms to the terrestrial ancestor of the seal.<sup>45</sup>*

Figure 8.2g: A seal and one of its closest terrestrial relatives.

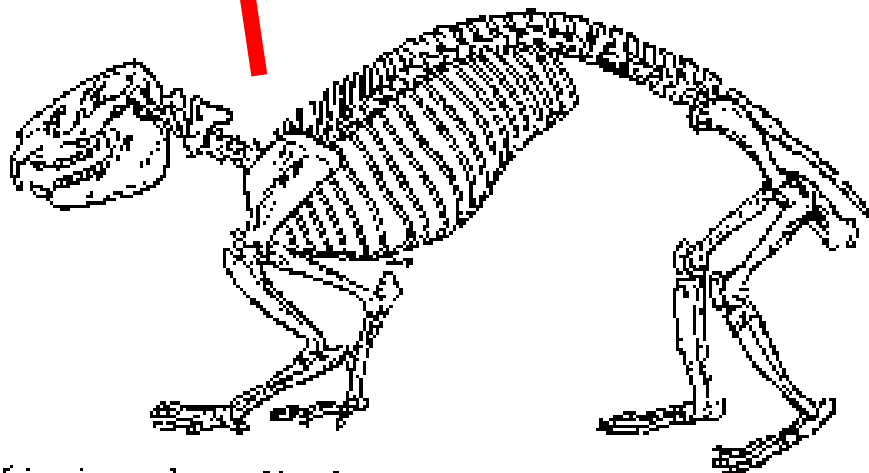
**Cynodictis gregarius**



**Sea Cow**



*Halitherium, an early sea cow from the Oligocene; (From Romer,<sup>14</sup>*



*The skeleton (from Gregory)<sup>15</sup> of a modern hyrax, a small tusk-like mammal which is one of the least specialized members of the Sirenia, the group to which the sea cow also belong. Fossils similar to the hyrax and its relatives are considered to be the closest known terrestrial relatives of the sirenian.<sup>16</sup>*

Figure 3.21: An early Sirenian and one of its closest terrestrial relatives.

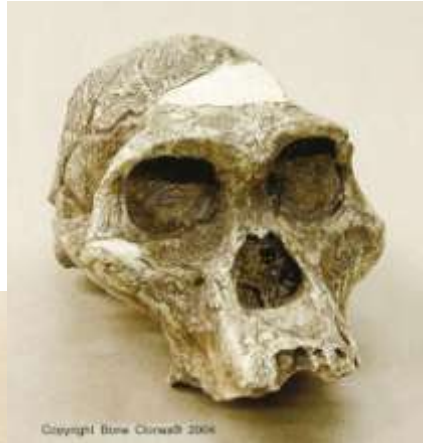
**Hyrax**

## APES

**Australopithecus africanus Skull Sts 5 "Mrs. Ples"**



**Australopithecus robustus Skull SK-48**



**Australopithecus boisei Skull KNM-ER 406**



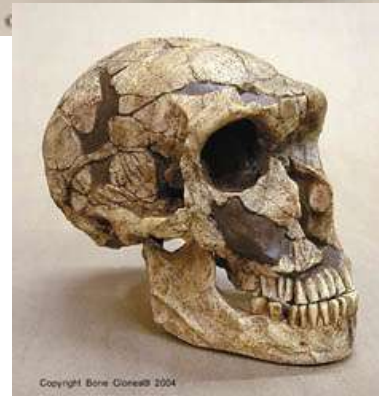
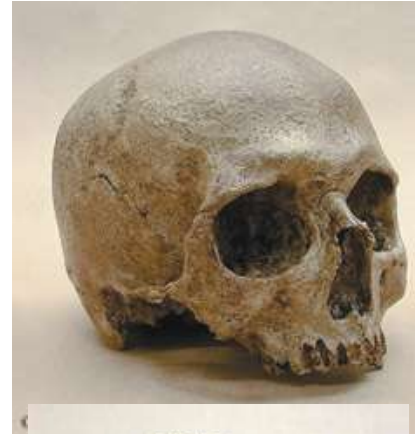
**Australopithecus afarensis**

## HUMANS

**Homo habilis Skull KNM-ER 1813**



**Cro-Magnon Skull**



**Homo neanderthalensis Skull La Ferrassie 1**



**Homo neanderthalensis Skull La Chapelle -aux-Saints**

## 1. Not all Fossil Bearing Strata Has Been Examined.

Since Darwin’s time, the gaps have only become more pronounced. Especially obvious at Cambrian strata where all main invertebrate types appear already formed.

## 2. Only a small fraction of the species that existed long ago became fossils.

Most modern forms are found as fossils. Many paleontologists are skeptical of this explanation (see terrestrial vertebrate adequacy of record)

## 3. Evolution Occurred in “Jumps”

Real phenomena? Inspired Punctuated Equilibrium theory.

**More gaps  
at major  
divisions  
than at minor  
divisions  
  
(Reverse of  
evolutionary  
theory)**



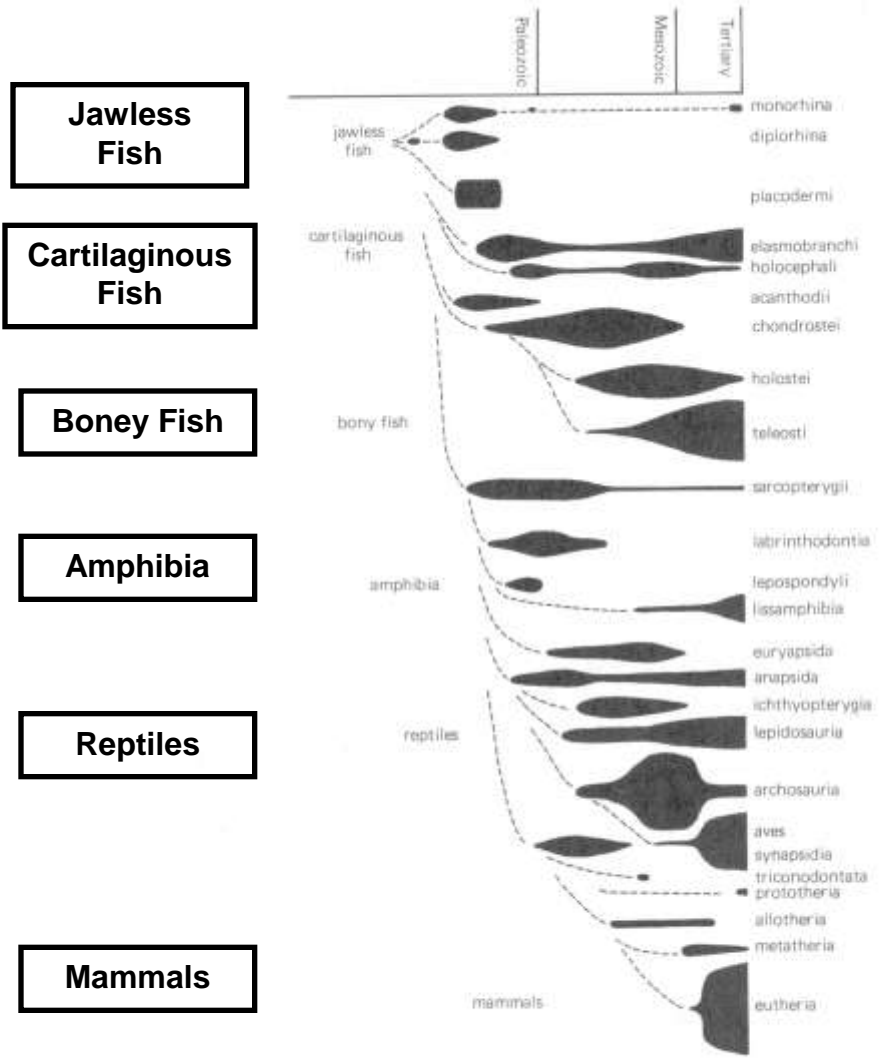
**TAXONOMY- The science of categorizing organisms**

Order	Cat Example	
<b>KINGDOM</b>	Animalia	Multi-cellular eukaryotes (cells with nuclei) that ingest nutrients
<b>PHYLUM</b>	Chordata	Pharyngeal pouches, dorsal tubular nerve cord
<b>SUBPHYLUM</b>	Vertebrata	Possess vertebrae
<b>CLASS</b>	Mammalia	Regulated body temperature, possess hair, suckle their young
<b>ORDER</b>	Carnivora	Predatory mode of life
<b>FAMILY</b>	Felidae	Tractile claws, lengthy tail, tooth arrangement
<b>GENUS</b>	Felis	True cats
<b>SPECIES</b>	domestica	Sleeps on couch

<b>Terrestrial Vertebrates</b>			
Order	Living Today	Found as Fossils	Percentage Fossilized
KINGDOM			
PHYLUM			
SUBPHYLUM			
CLASS			
ORDER	43	42	<b>97.7 %</b>
FAMILY	329	261	<b>79.1 % *</b>
GENUS			
SPECIES			

Only a few were fossilized ??

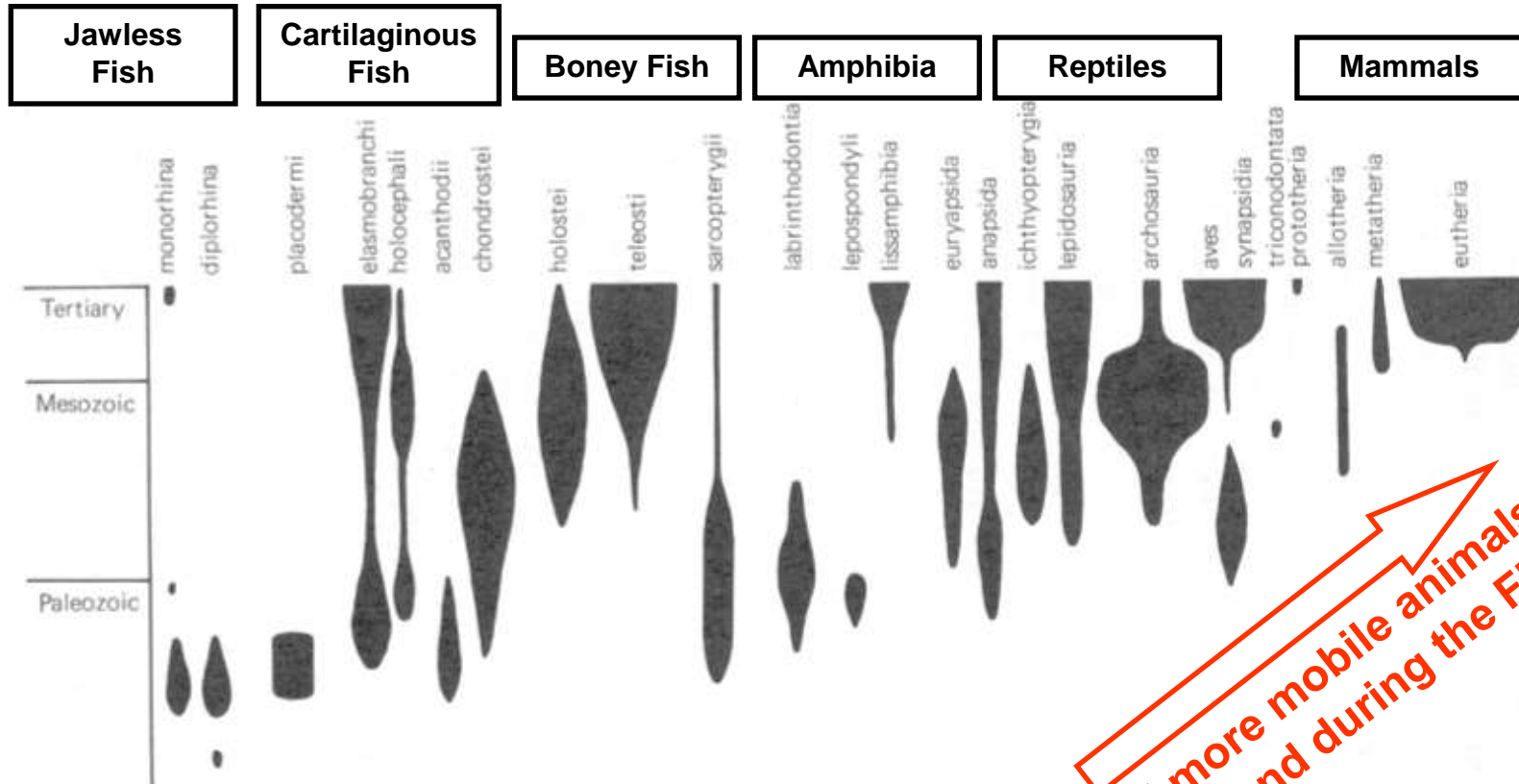
\* Percentage fossilized is 87.8 % if birds are excluded



Stratigraphic Abundance of Major Vertebrate Groups Through Time  
(From Denton, based on Romer and Carter)

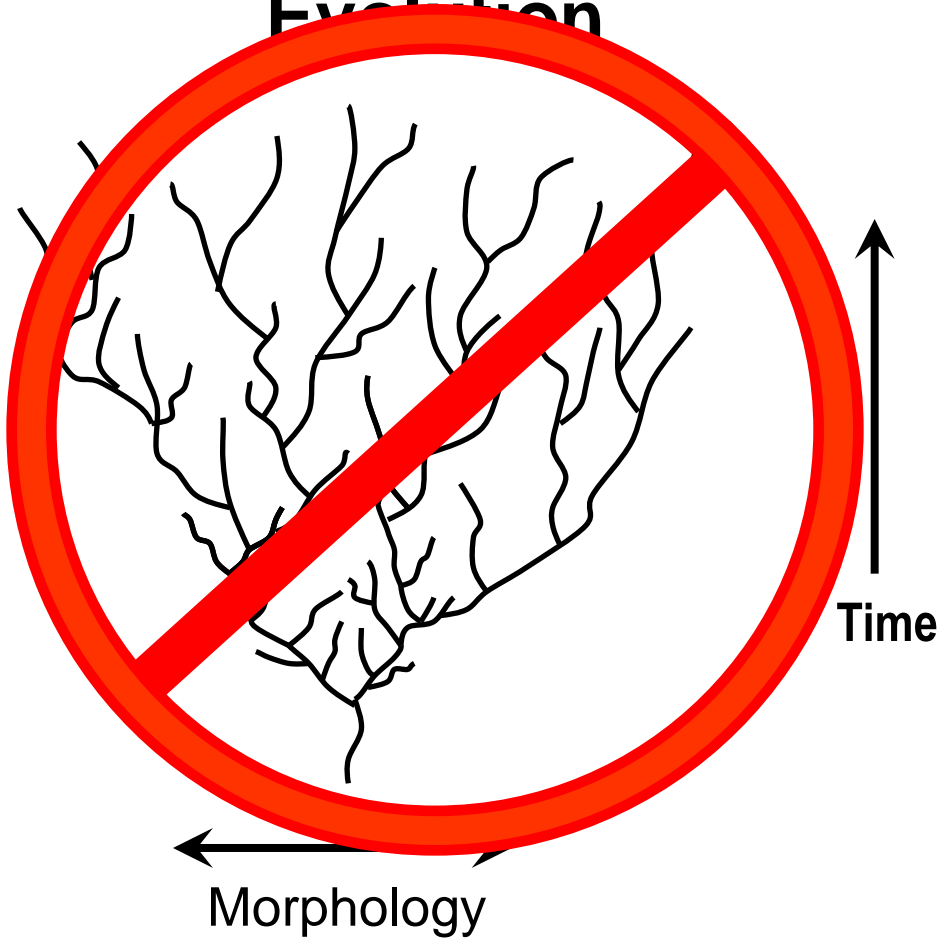
Thickness of black lines indicate relative abundance of groups through time. Dashed lines depict postulated lineages

Figure 8.3: Adaptive Radiation of Vertebrates showing stratigraphic abundance of the major vertebrate groups through time. The dotted lines represent hypothetical lineages required by evolution to link the various groups together. (from Romer and Carter)<sup>53-54</sup>

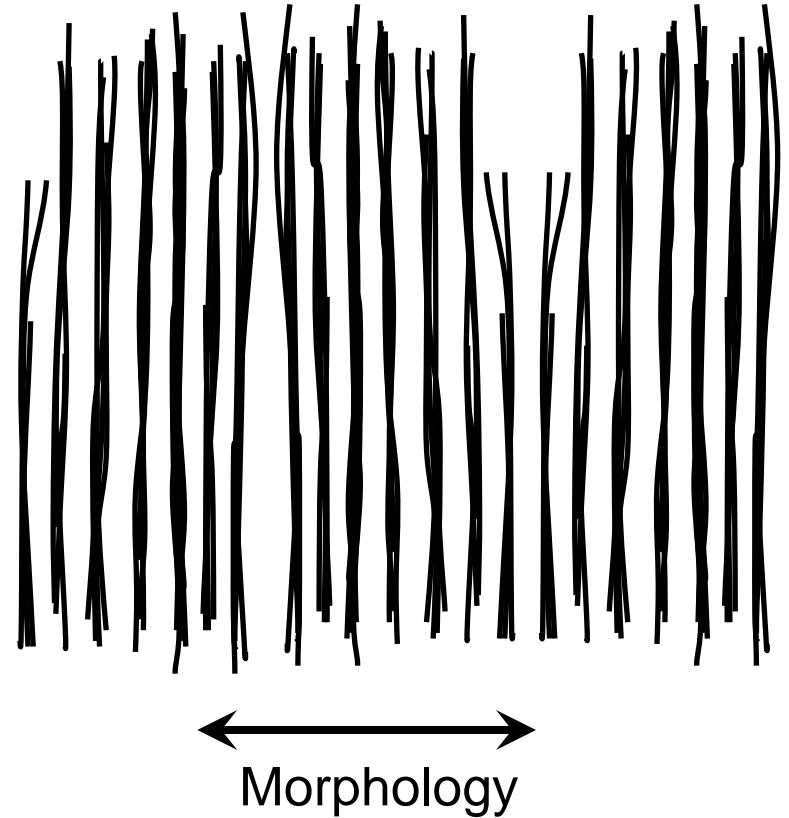


**Heavier and more mobile animals got to higher ground during the Flood.**

## Evolution




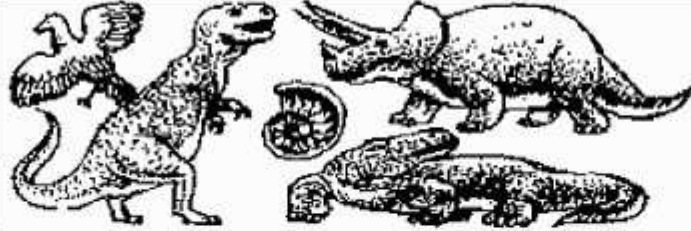

## Creation





# The Geologic Column

## GEOLOGIC TIME SCALE

ERA	PERIOD	EPOCH	SUCCESION OF LIFE	INDEX FOSSILS	
CENOZOIC Recent Life	QUATERNARY 0-1 Million Years Rise of Man	Recent Pleistocene		PECTEN NEPTUNEA	
	TERTIARY 62 Million Years Rise of Mammals	Pliocene Miocene Oligocene Eocene Paleocene		CALYPTRAPHORUS VENERICARDIA	
MESOZOIC Middle Life	CRETACEOUS 72 Million Years Modern Seed Bearing Plants. Dinosaurs		SCAPHITES	INOCERAMUS	
	JURASSIC 40 Million Years First Birds		NERINA	PERISPHINCTES	
	TRIASSIC 49 Million Years Cycads. First Dinosaur		TROPHITES	MONOTIS	
PALEOZOIC Ancient Life	PERMIAN 60 Million Years First Reptiles		LEPTODUS	PARAPUSULINA	
	Carboniferous PENNSYLVANIAN 30 Million Years First Insects		DICTYOCLOSTUS		
			MISSISSIPPIAN 35 Million Years Many Crinoids	CACTOCRINUS	PROLECANITES
	DEVONIAN 60 Million Years First Seed Plants Cartilage Fish		PALMATOLEPUS	MUCROSPIRIFER	
	SILURIAN 20 Million Years Earliest Land Animals		HEXAMOCERAS	CRYSTIPHYLLUM	
	ORDOVICIAN 75 Million Years Early Bony Fish		BATHYURUS (Trilobite)	TETRAGRAPTUS	
	CAMBRIAN 100 Million Years Invertebrate animals, Brachiopods, Trilobites		PARADOXIDES (Trilobite)	BILLINGSSELLA	
PRECAMBRIAN Very few fossils present (bacteria-algae-pollen?)					

Period names are descriptive of a particular discovery, **NOT** meters below sea level or other quantitative measure.



ERA	PERIOD	NAME ORIGIN	TYPICAL ORGANISMS	M.Y.A ??
CENOZOIC “Recent Life”	Quaternary	---	Modern Plants, Animals, Man	2
	Tertiary	---	Mammals	65
MESOZOIC “Middle Life”	Cretaceous	Chalk: (Latin: Creta) White cliffs along English channel	Flowering Plants	135
	Jurassic	Jura Mountains, French/Swiss border	Birds, Insects	190
	Triassic	3 Sections Of Rocks, Germany	Dinosaurs	225
PALEOZOIC “Ancient Life”	Permian	Perm, USSR	Primitive Reptiles	270
	Pennsylvanian	State of Pennsylvania, USA	Spore Plants	310
	Mississippian	Mississippi River, USA	Amphibians	350
	Devonian	Devonshire, UK	Boneless Fish, Seed Plants	400
	Silvrian	Silvrics (A Celtic Tribe)	Fish, Brachiopods	430
	Ordovician	Ordivics (A Celtic Tribe)	Corals, Trilobites	500
	Cambrian	Roman name for Wales (Cambria), UK	Trilobites, Brachiopods, Jellyfish, Sponges	600

- **The Geologic Column is Imaginary**

























1. Strata in many places is out of order (e.g., Matterhorn).
2. The complete geologic column (all 12 periods) is not found virtually anywhere on earth.
3. Two-thirds (2/3) of the earth's surface has five (5) or fewer of the periods in place.
4. 10-20% of the land surface has three (3) geologic periods appearing in "correct" consecutive order.

- **High complexity life is found at “early” ages**

- **Living fossils undermine evolutionary claims**

- **Polystromatic fossils - sometimes fossils span millions of years of time.**

- **Misplaced fossils - fossils are sometimes found in inappropriate places, or “wrong” strata**

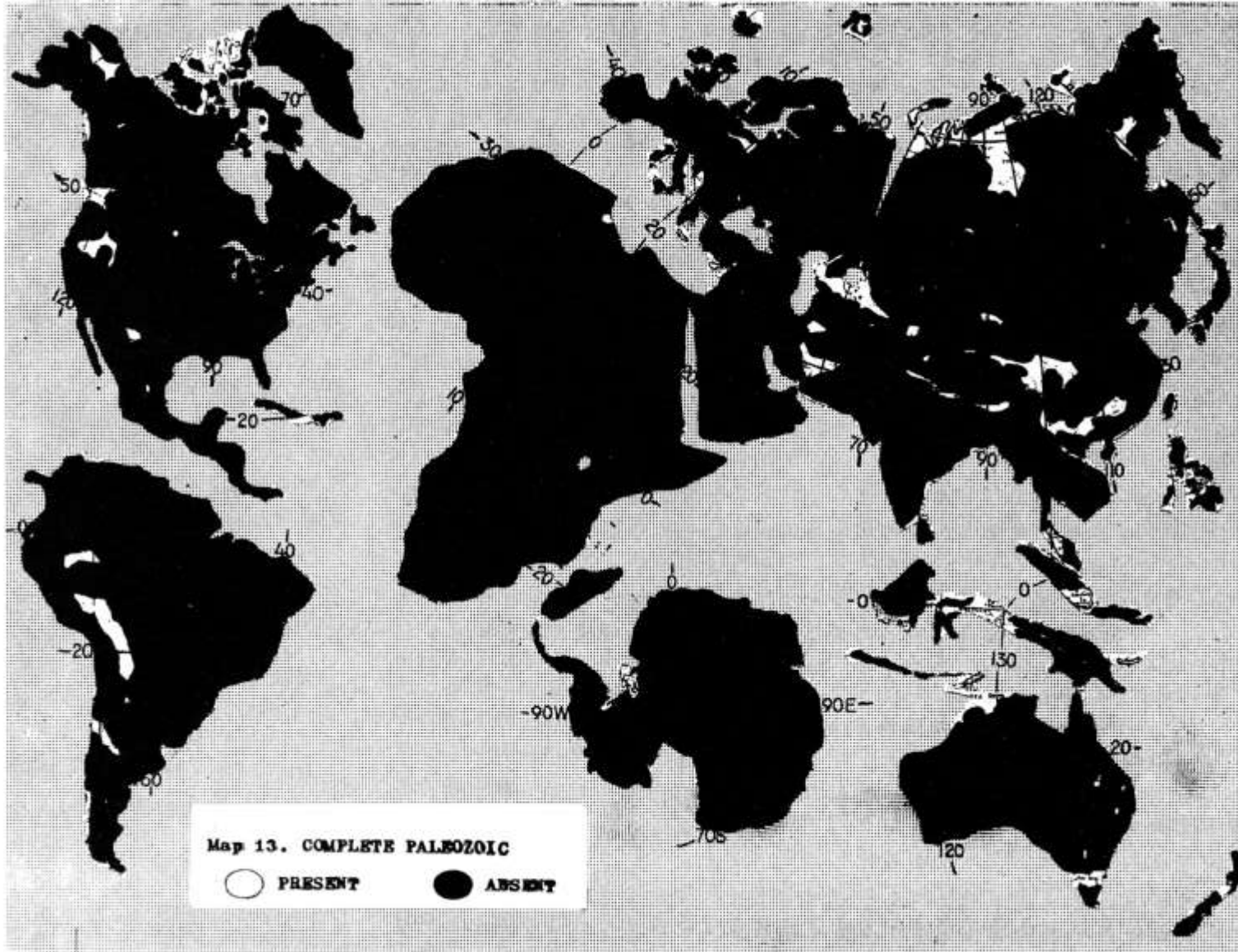
CENOZOIC ERA (Age of Recent Life)	Quaternary Period	<i>Pecten gibbus</i>		<i>Neptunea tabulata</i>	
	Tertiary Period	<i>Calyptrophorus velatus</i>		<i>Venericardia planicosta</i>	
MESOZOIC ERA (Age of Medieval Life)	Cretaceous Period	<i>Scaphites hippocrepis</i>		<i>Inoceramus labiatus</i>	
	Jurassic Period	<i>Perisphinctes tiziani</i>		<i>Nerinea trinodosa</i>	
	Triassic Period	<i>Trochites subbullatus</i>		<i>Monotis subcircularis</i>	
PALEOZOIC ERA (Age of Ancient Life)	Permian Period	<i>Leptodus americanus</i>		<i>Parafusulina bosei</i>	
	Pennsylvanian Period	<i>Dictyoclostus americanus</i>		<i>Lophophyllidium proliferum</i>	
	Mississippian Period	<i>Cactocrinus multibrachiatus</i>		<i>Prolecanites gurleyi</i>	
	Devonian Period	<i>Mucrospirifer mucronatus</i>		<i>Palmatolepus unicornis</i>	
	Silurian Period	<i>Cystiphyllum niagarensis</i>		<i>Hexamoceras hertzeri</i>	
	Ordovician Period	<i>Bathyrurus extans</i>		<i>Tetraraptus fructicosus</i>	
	Cambrian Period	<i>Paradoxides pinus</i>		<i>Billingsella corrugata</i>	
PRECAMBRIAN					



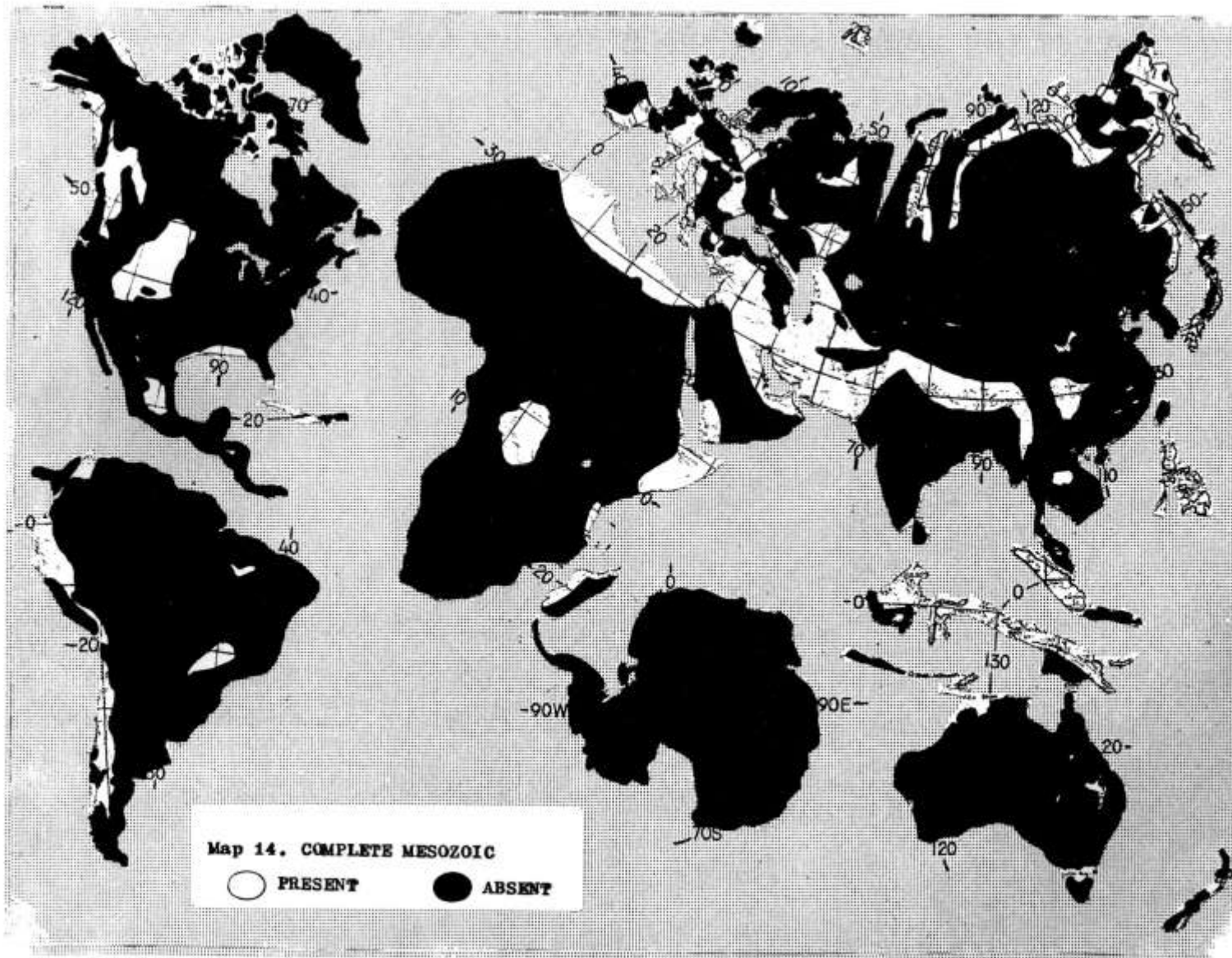
More  
Advanced  
??

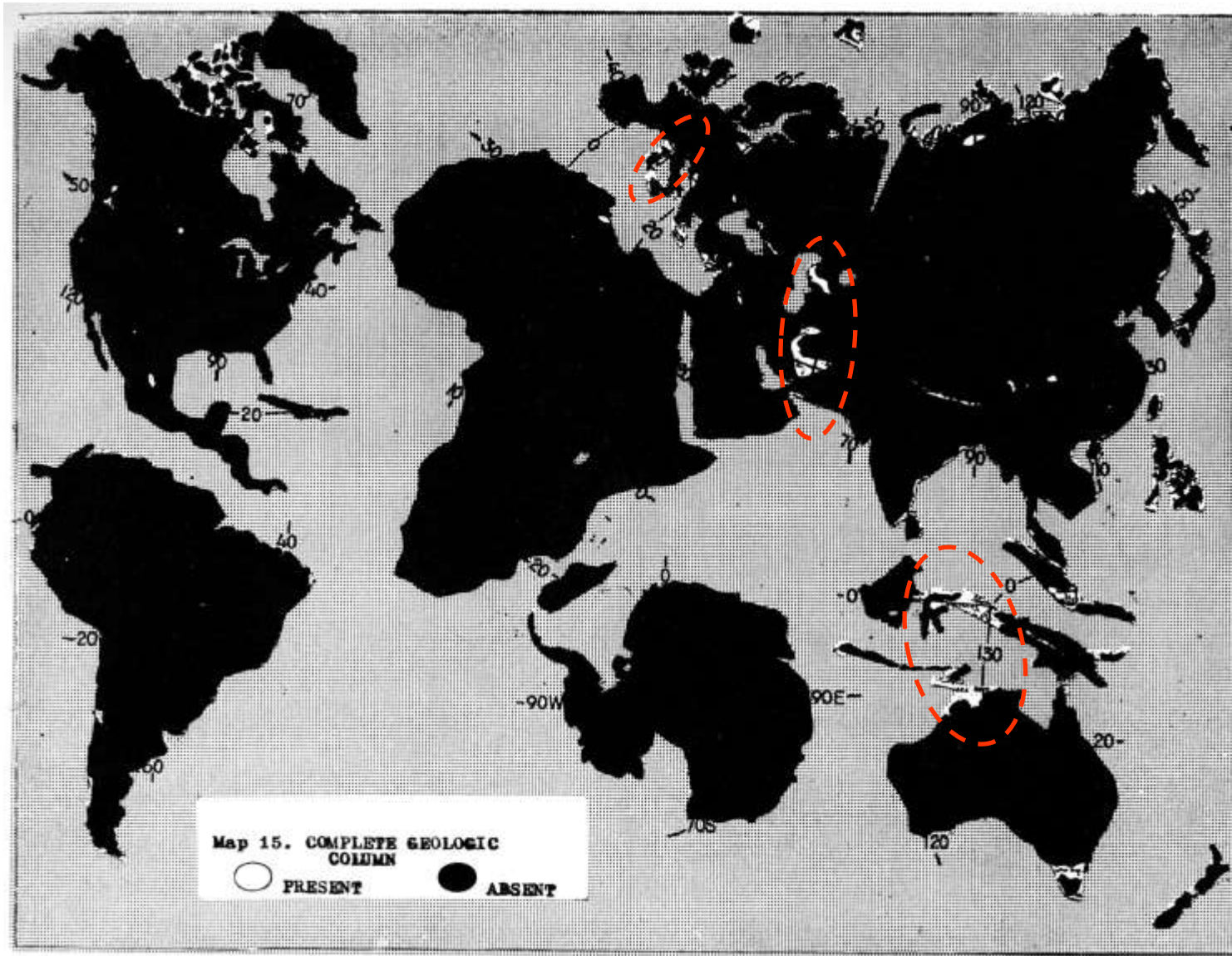
## PERIODS

- Permian
- Pennsylvanian
- Mississippian
- Devonian
- Silurian
- Ordovician
- Cambrian



PERIODS  
Cretaceous  
Jurassic  
Triassic





**PERIODS**

- Quaternary
- Tertiary
- Cretaceous
- Jurassic
- Triassic
- Permian
- Pennsylvanian
- Mississippian
- Devonian
- Silurian
- Ordovician
- Cambrian



Roots are in a coal seam, tree extends through several rock layers (Tennessee)



22 Ft. Lycopod Tree (Joggins Cliffs)



Type of fossil	Proper age	Found in	Location	Reference
Pollen	Tertiary	Quaternary	Boikow, Poland	146
Mammal bones	Tertiary (late)	Tertiary (early)	Kazakhstan, USSR	148
Spores	Tertiary (recent)	Permian	Southland, New Zealand	165
Plant tissue	Silurian (and/or younger)	Ordovician	Oklahoma, USA	190
Palm wood	Tertiary	Jurassic	Utah, USA	169
Spores	Tertiary (early)	Jurassic	Louisiana-Texas, USA	210
Trilobites	Cambrian	Devonian	Bielsko-Mogilany, Poland	203
Brachiopods	Permian	Triassic	Salt Range, Pakistan	142
Pollen	Cretaceous	Tertiary	British Columbia, Canada	216
Nannoplankton	Cretaceous	Tertiary	Glogow, Poland	171
Nannoflora	Cretaceous	Tertiary	Zinda Pir, W. Pakistan	173
Trilobite	"Late Paleozoic"	Tertiary	Utah, USA	184
Acanthodian Fish Scales /Spores	Devonian	Cretaceous	Permian Basin, Australia	89
Algae	Precambrian	Cambrian or Ordovician	Verkhoyansk, USSR	205
Crinoids	Silurian	Carboniferous	Pamir Mts., USSR	187

Excerpt from a list of 200 by J. Woodmorappe

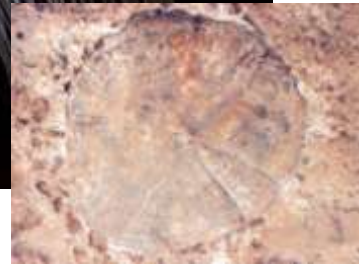
# Living Fossils Examples - I



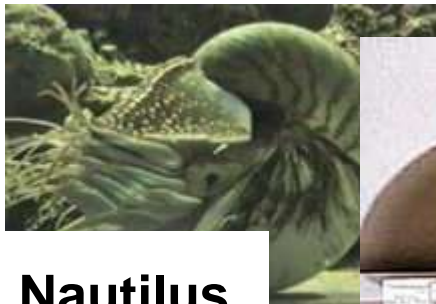
**Sand Dollar**



**Jelly Fish**



**Lobster**



**Nautilus**



**Coelacanth**



**Horseshoe**

**Crab**

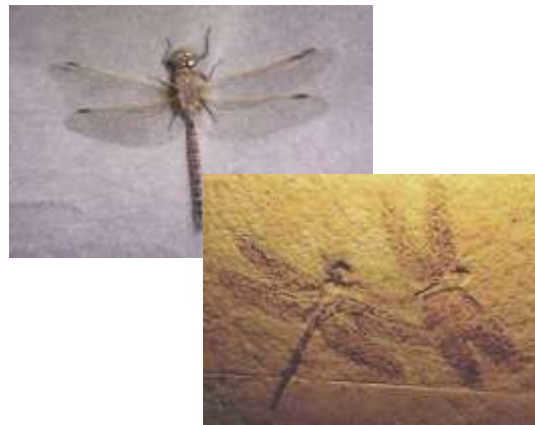




**Wollemi Pine**



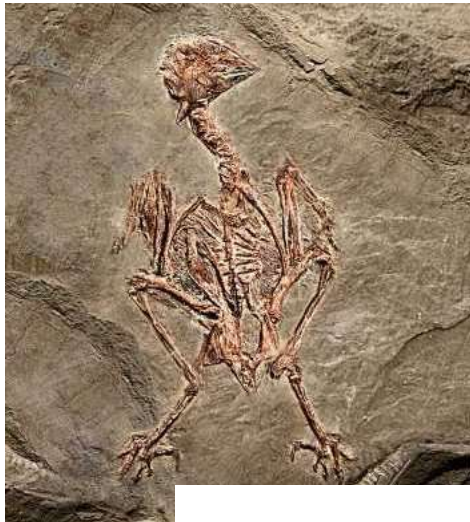
**Fern**



**Dragonfly**



**Frog**



**Chicken**

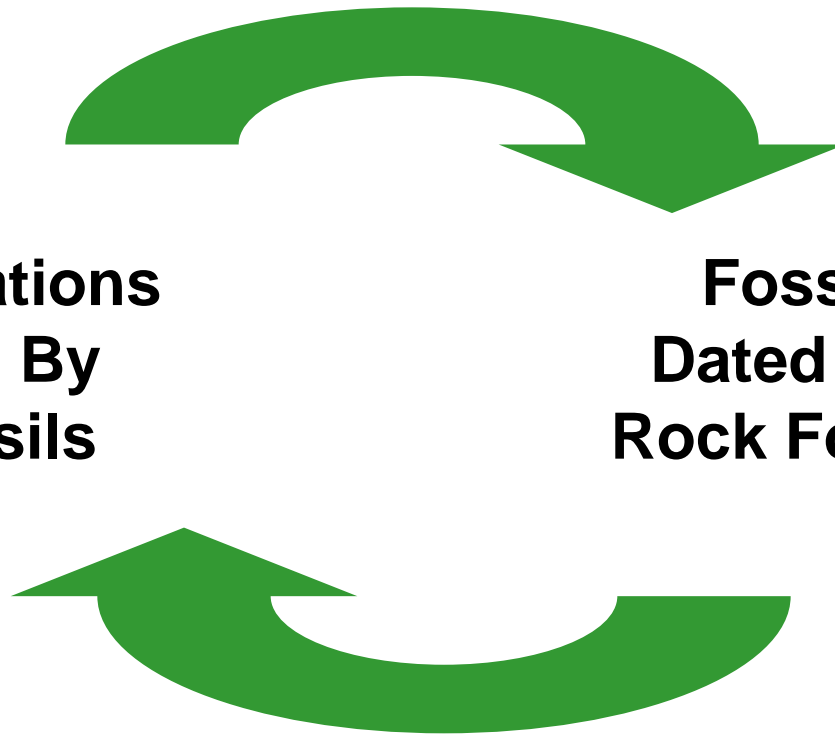


**Humans**

## Circular Reasoning of the Geologic Column

**Rock Formations  
Are Dated By  
Their Fossils**

**Fossils Are  
Dated by Their  
Rock Formations**



## A Water Catastrophe like the Noachian Flood Explains a lot

- Fossilization typically requires water.
- Marine fossils are most common - inundated in place.
- Fossil graveyards - large pile-ups of fossils transported and concentrated together by water flow.
- Polystratic fossils - water logged trees sinking to bottom.
- Rapid Burial - ephemeral (same day) marking such as ripple marks, rain prints, and animal tracks are preserved before eroding.



[http://www.pathlights.com/ce\\_encyclopedia/Encyclopedia/12fos11.htm#Circular%20Reasoning](http://www.pathlights.com/ce_encyclopedia/Encyclopedia/12fos11.htm#Circular%20Reasoning)

**Last meal: a fish eating a fish**



**Trilobite Tracks**



**Dinosaur Graveyard  
Bighorn, Wyoming**



**A Fossil Ichthyosaur Giving Birth**

## Fossilization and the Flood

- Increased mobility of "higher" animals allowed postponement of inundation.
- Hydrodynamic sorting - high density and high sphericity objects settle out sooner.
- Elevation of habitat - higher elevations with mammals, etc., would be fossilized later as flood waters rose.



# Summary



- 1) Gaps in the fossil record invalidate the theory of evolution.
- 2) The geologic column is not universally present, and is problematic.
- 3) Physical evidence supports the Genesis account of creation and the Flood.