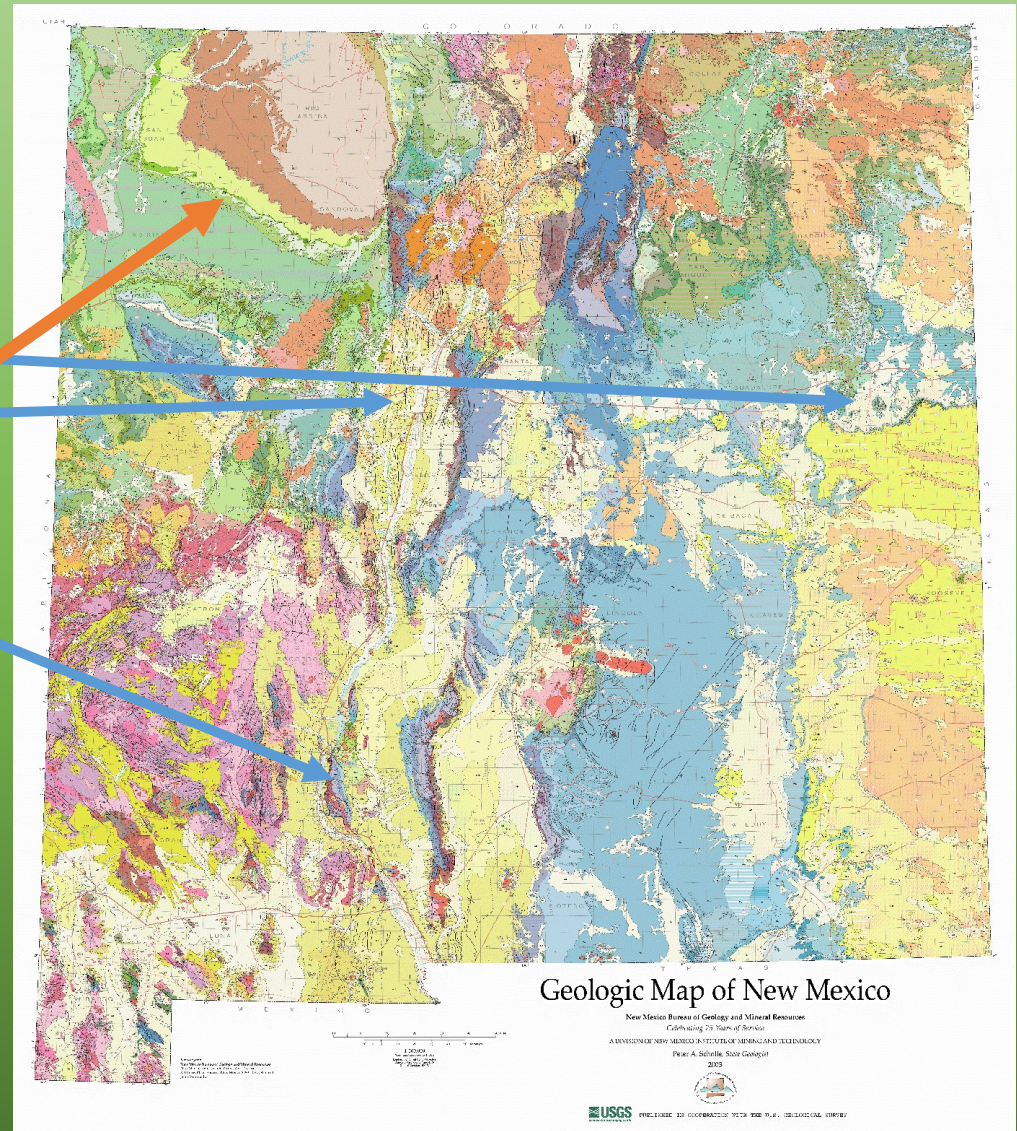


# Fossil Turtles of New Mexico

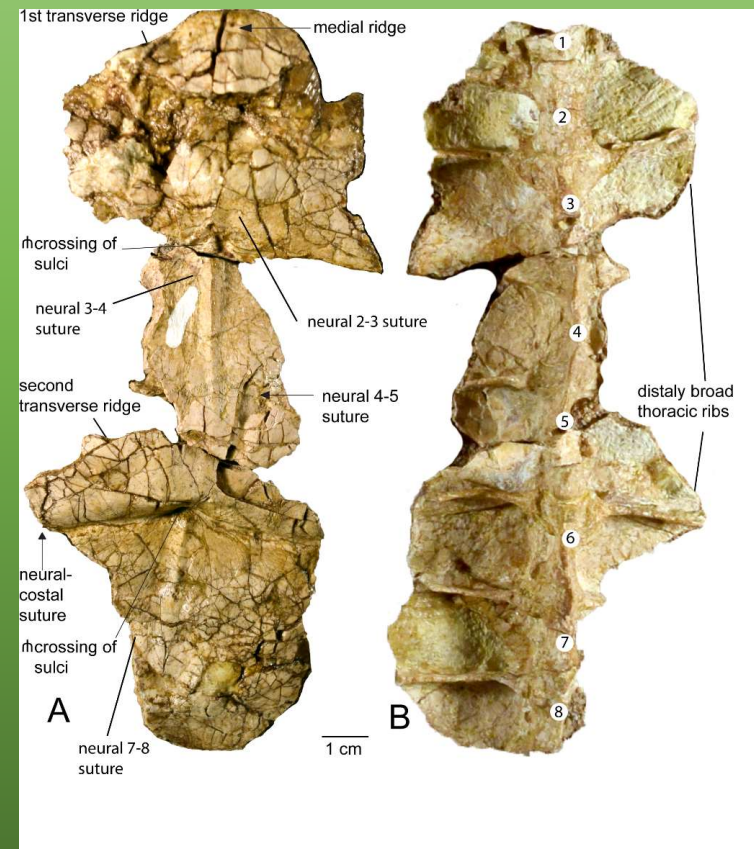
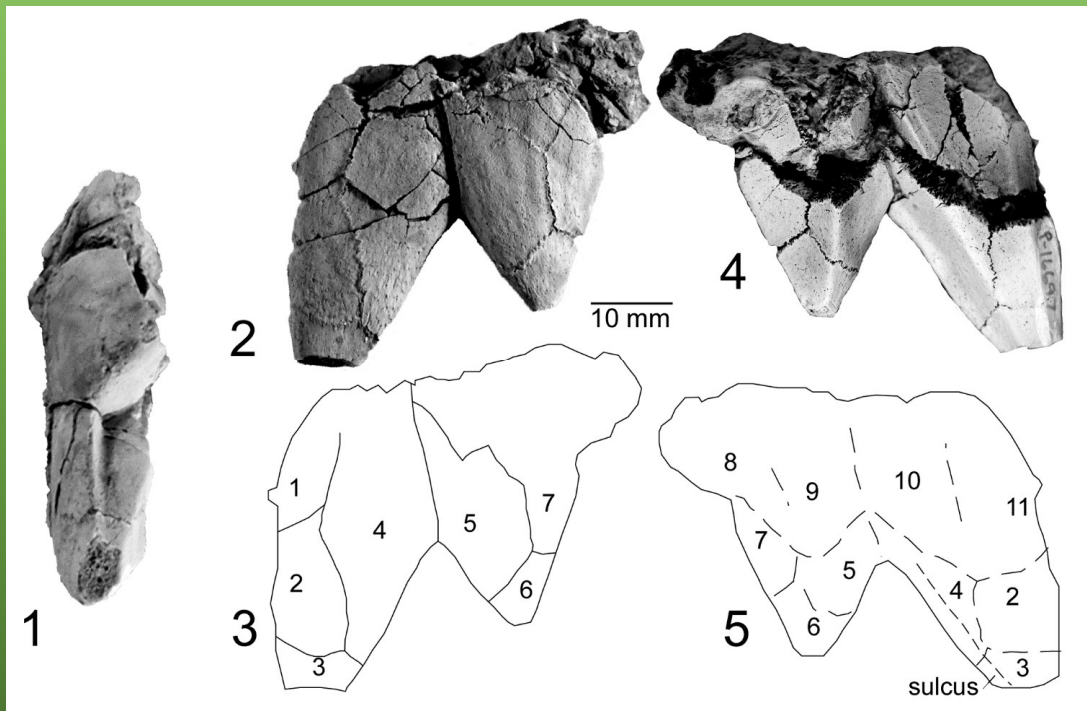
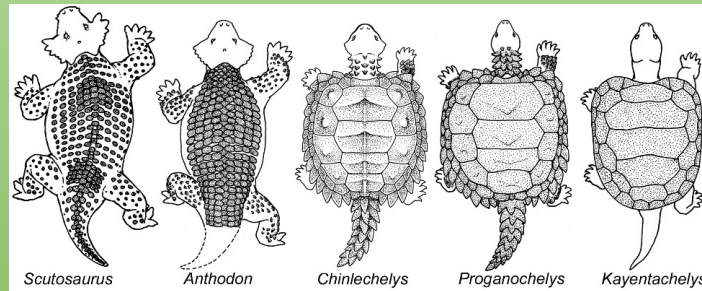
Asher J. Lichtig and Spencer G. Lucas  
New Mexico Museum of Natural History  
Albuquerque, New Mexico

# Where are they?

- *Chinlechelys*
- *Glyptops*
- Old *Neurankylus*
- *Everything else*



Late Triassic  
*Chinlechelys*  
North America's  
oldest turtle



## Late Jurassic *Glyptops*

The only Jurassic turtle from New Mexico

Late Jurassic—Brushy Basin Member of  
Morrison Formation

Found concreted to the side of a sauropod  
limb from Peterson Quarry, New Mexico's  
only Late Jurassic dinosaur bonebed



## Late Cretaceous *Denazinemys*

The most common turtle from  
the Kirtland Formation

Often found relatively complete



## *Neurankylus*

Relatively common large turtle  
in the San Juan Basin

Survives the K-T boundary



## *Adocus*

*Adocus* and trionychid turtles dominate the  
Fruitland Formation turtle fauna



## *Trionychids*

Trionychids are commonly found as  
isolated bits as seen here



# Paleocene *Neurankylus* *torrejonensis*

Most complete specimen known from the Nacimiento Formation

Complete shell with color pattern on the carapace known

Model on the right is labeled *N. eximius* but based on a specimen of *N. torrejonensis*



Paleocene  
platysternid  
*Cardichelyon*

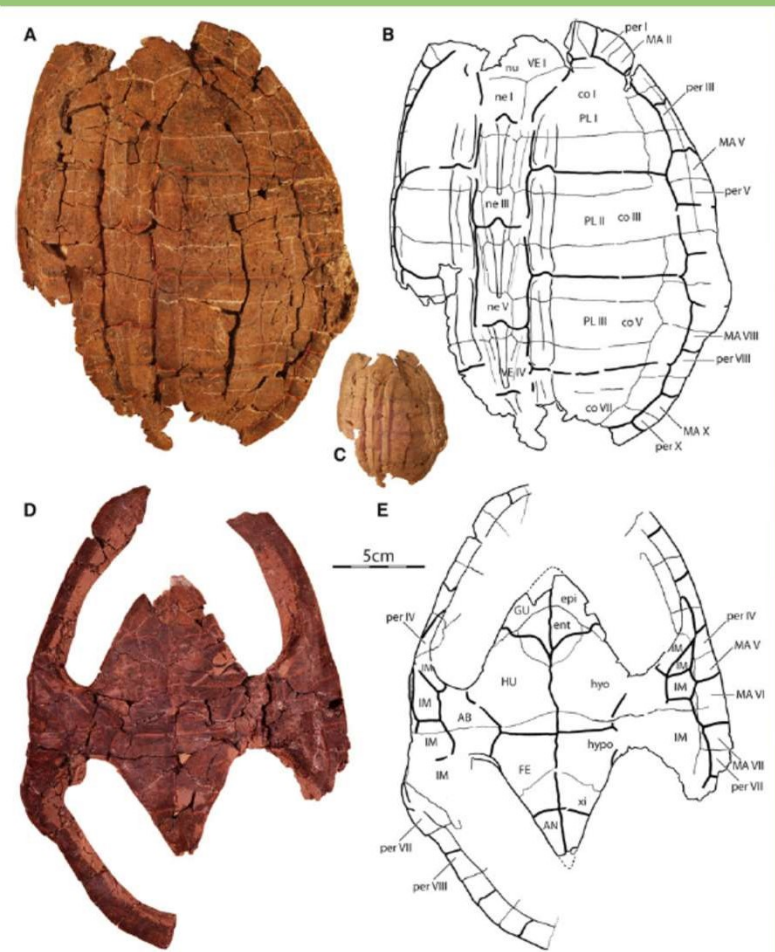


## *Compsemys*

potentially important for confirming the long temporal  
range of this species (Campanian to late Paleocene)



# Paleocene *Hoplochelys*





Paleocene

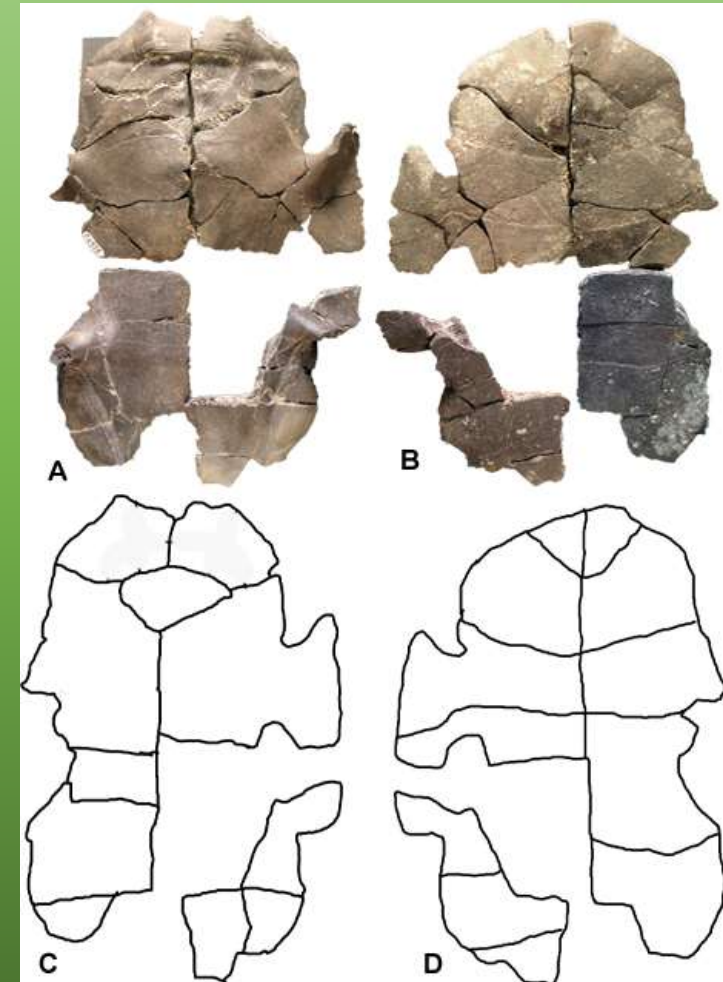
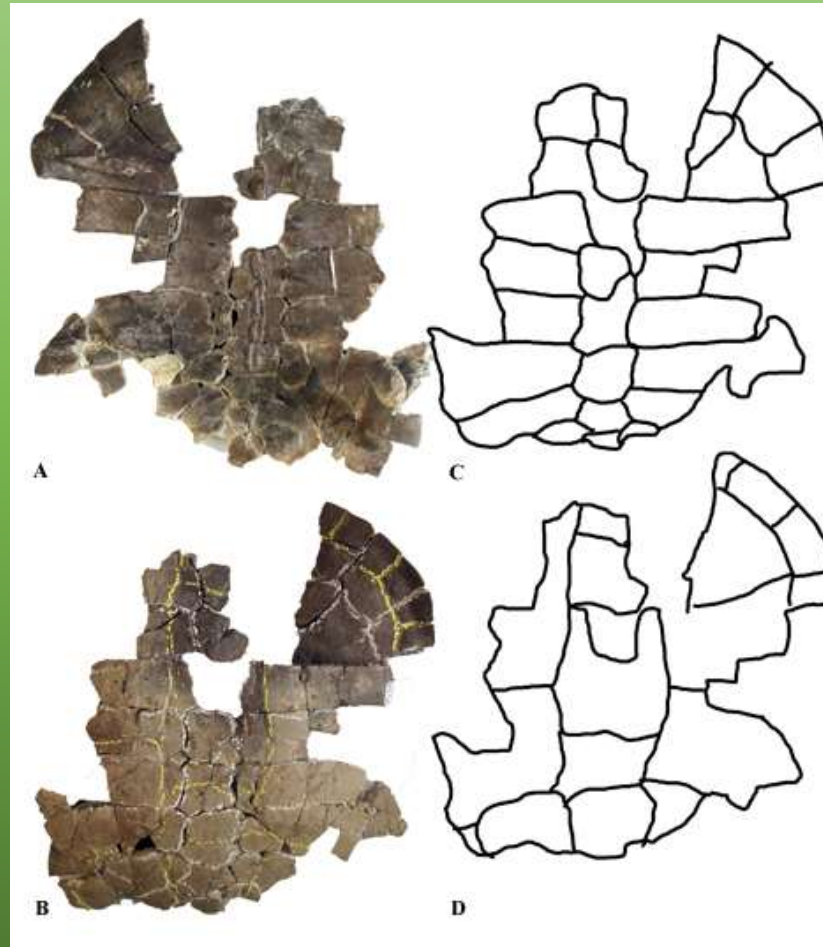
*Axestemys montinsana*

A soft-shelled turtle speculated to be specialized for eating mollusks

First described by Vitek (2012)



Eocene  
*Echmatemys*

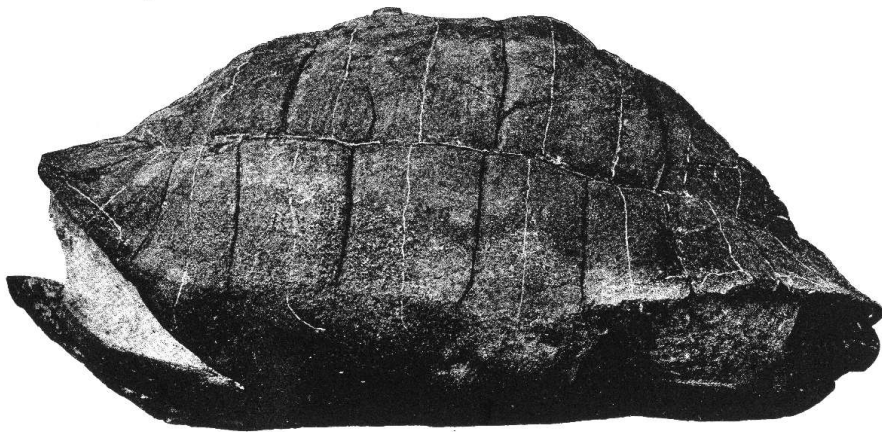


# Eocene *Hadrianus*

The oldest tortoise

San Jose Formation, San Juan Basin

Wasatchian (early Eocene)



1

Fig. 1. *Hadrianus majusculus*.  $\times \frac{1}{4}$ . Page 374.



A



B



C

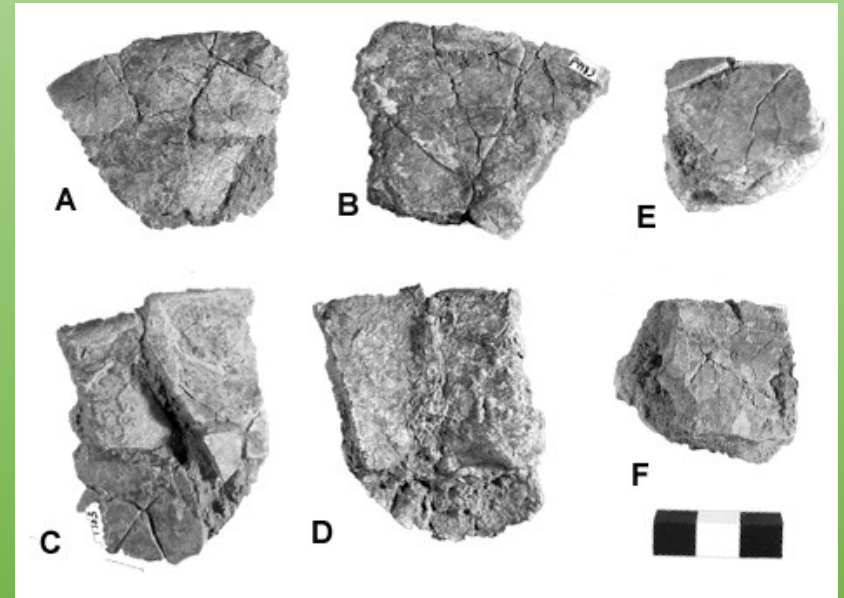


D

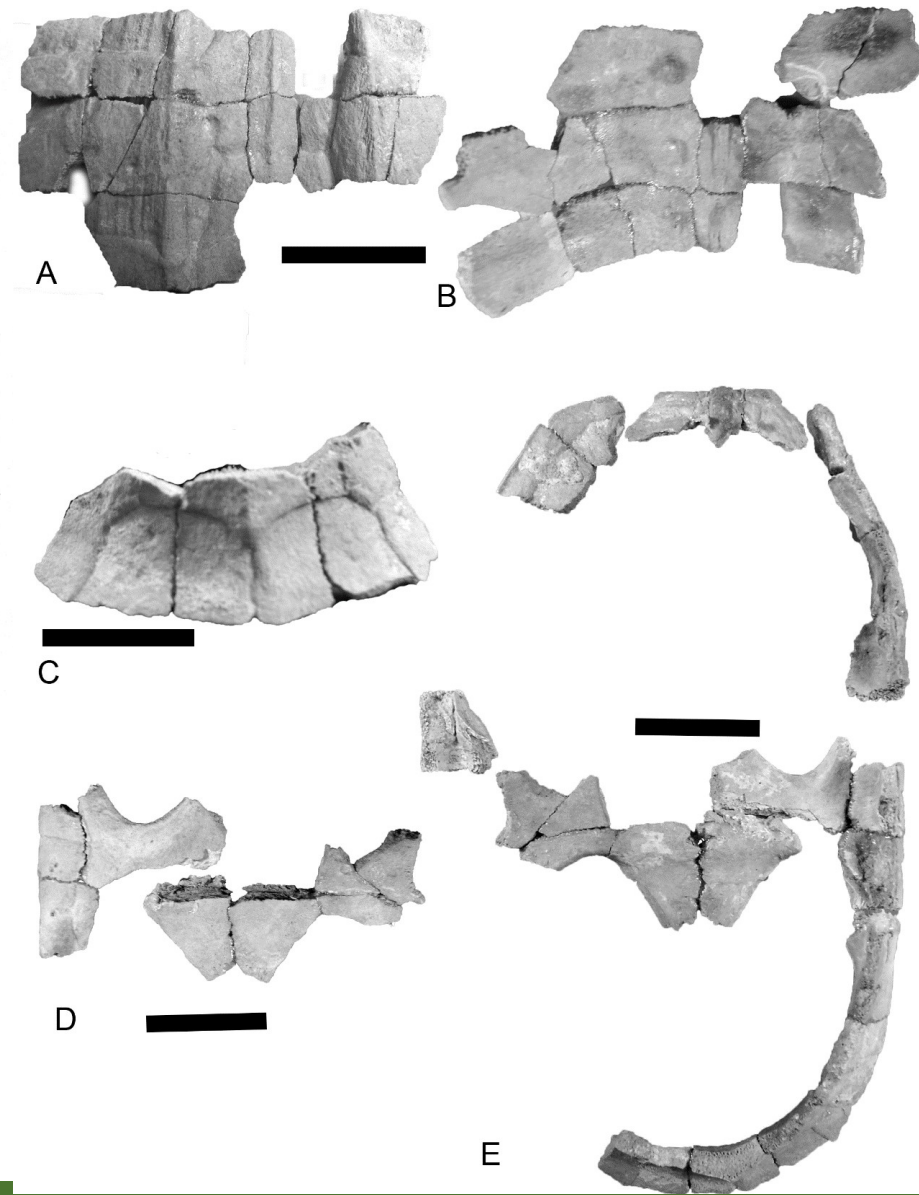
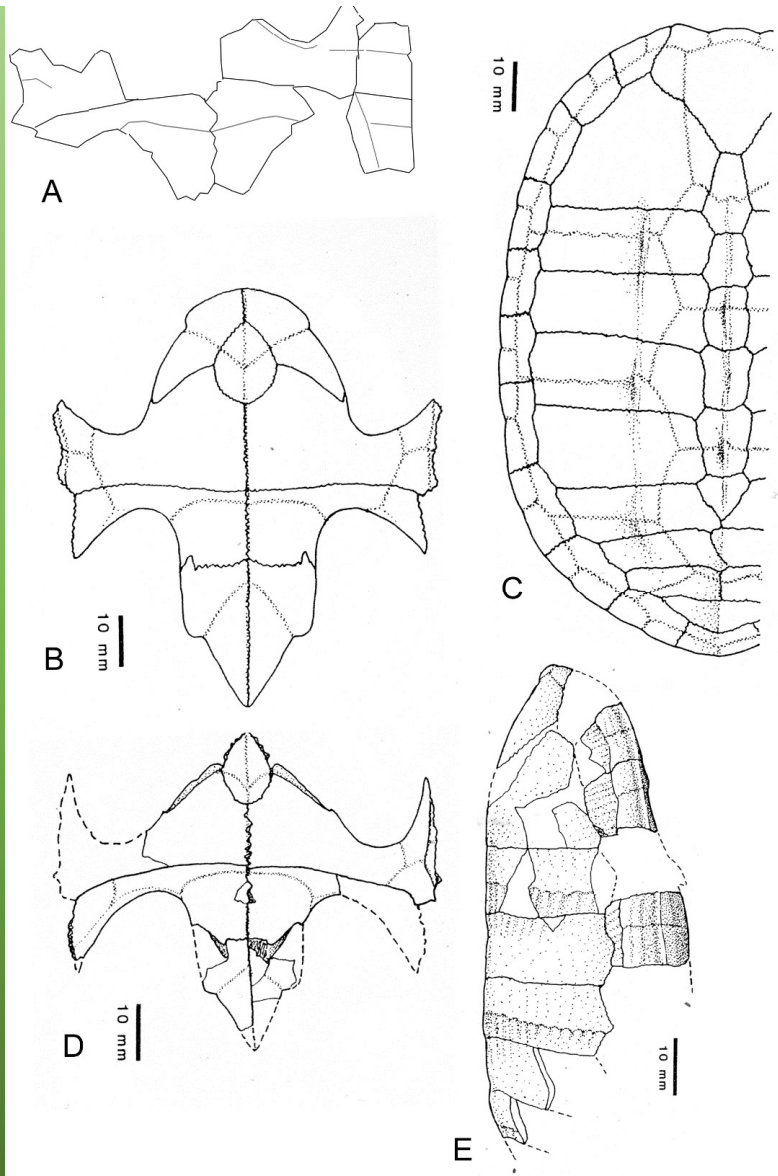


E

Eocene  
*Baptemys*



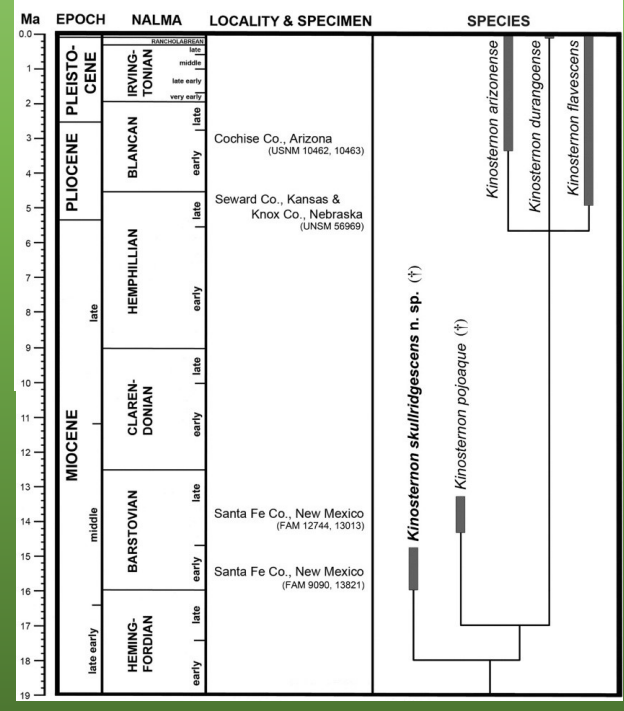
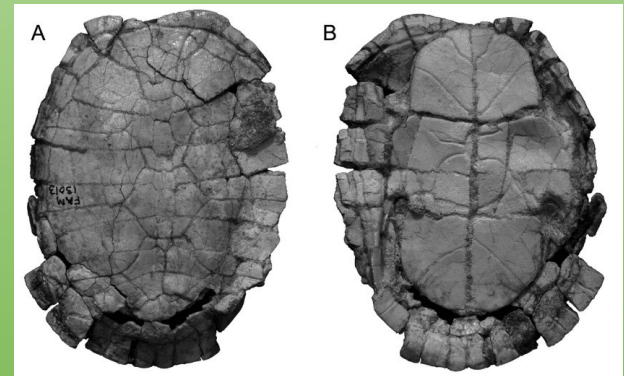
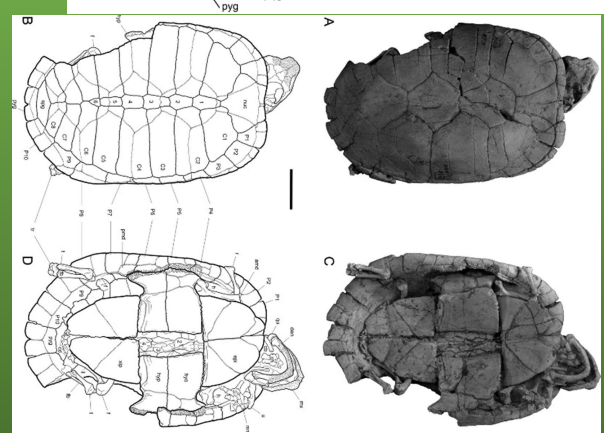
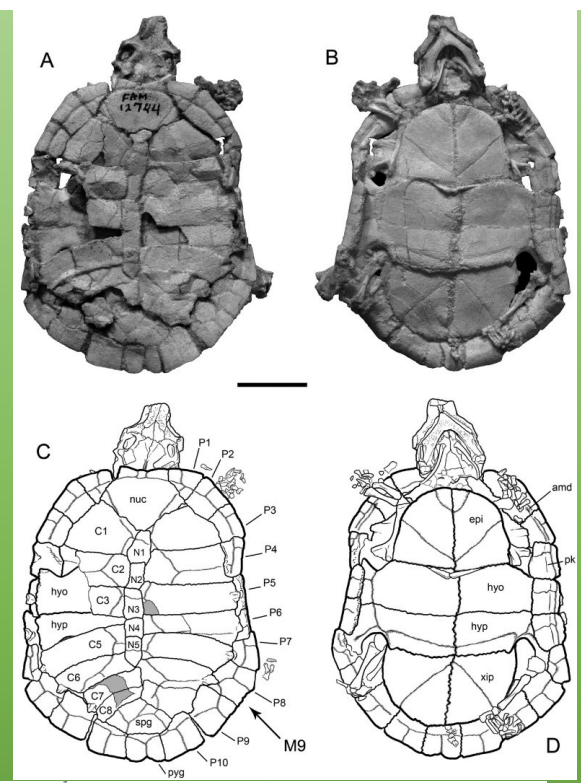
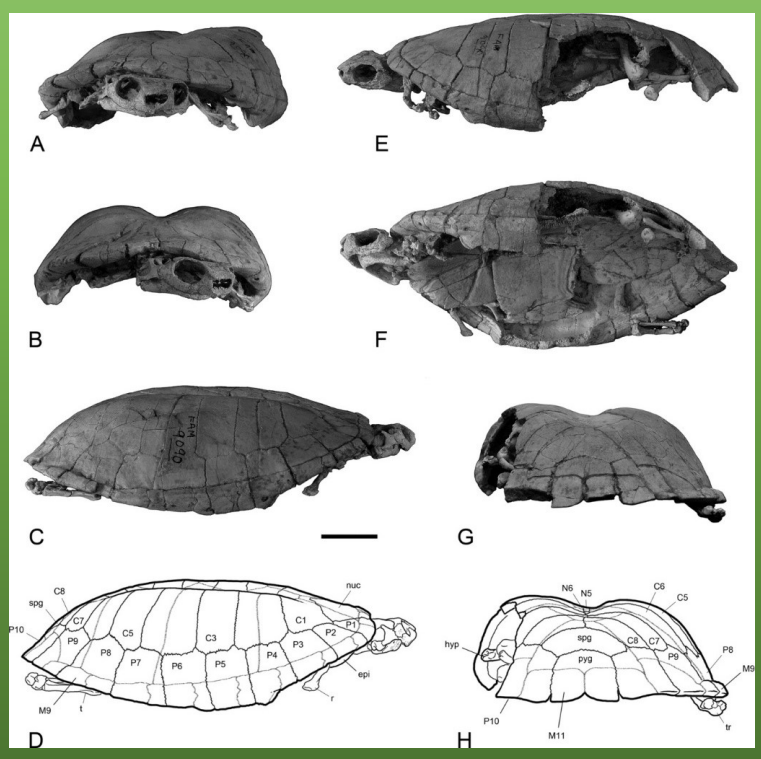
Eocene  
*Baltemys*



# Fossil Mud turtles of New Mexico's Miocene

Written up by Jason Bourque of the Florida Museum of Natural History

May have some biostratigraphic value



# Pliocene Caballo Tortoise



Pliocene Pearson Mesa  
Tortoise *Hesperotestudo*  
(AKA “Hercules”)





# Summary

- Triassic
  - *Chinlechelys*
- Jurassic
  - *Glyptops*
- Cretaceous
  - Baenids
  - *Adocus*
  - trionychids
- Paleocene
  - *Neurankylus*
  - *Compsemys*
  - *Hoplochelys*
  - *Axestemys*
  - *Cardichelyon*
- Eocene
  - *Echmatemys*
  - *Hadrianus*
  - *Baptemys*
  - *Baltemys*
- Miocene
  - Giant tortoises
  - Mud turtles *Kinosternon*
- Plio-Pleistocene
  - Giant tortoises
  - modern fauna

Thank you,  
any questions?

**A 140-year-old tortoise wearing  
her 5-day-old son as a hat.**

