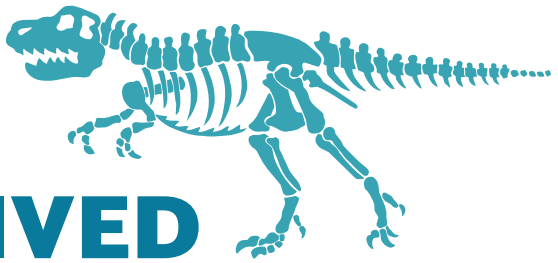
Dino Times!



HOW DINOSAURS LIVED

WHAT DID A DINOSAUR'S world look like? Step back in time—about 130 million years—to a part of eastern Asia now known as Liaoning ("lee-ow-NING"), China. Here, in fossilized lakebeds, scientists have uncovered thousands of fossil remains, including plants, insects, frogs, fish, small mammals, and even feathered dinosaurs! Together this collection creates a more complete picture of what a dinosaur ecosystem (its community of plants, animals, landscape, and weather) probably looked like. How did these animals and plants live together? Check out the illustrations below of Liaoning species discovered. Then answer the questions in "Eco-Quest" to the right.

A. ***Eomaia scansoria*** ("eeoh- MY-ah SCAN-sor-eeah"), ancient mammal

B. ***Sinosauropteryx prima*** ("SIGNno- sore-AHP-ter-ix PREE-ma"), feathered dinosaur

C. ***Confuciusornis sanctus*** ("con-FEW-shis-OR-nis SANK-tus"), flying bird with toothless beak

D. ***Dilong paradoxus*** ("dee-LONG pairuh-DOX-us"), feathered cousin of *T. rex*

E. ***Water strider*** (insect)

F. ***Repenomamus giganticus*** ("ra-pen-o-MAM-us ji-GAN-tehkus"), cat-sized primitive mammal

G. ***Archaefructus*** and ***Rehezamites*** trees

H. ***Psittacosaurus*** ("se-TACK-ah-sor-us"), a herbivorous dinosaur

ECO-QUEST

1. What similarities can you find between the bird *(Confuciusornis sanctus)* and *Sinosauropteryx prima* or *Dilong paradoxus* dinosaurs? Are you surprised by the similarities? Why or why not?
2. Scientists believe that *Dilong paradoxus* had a thin coat of feathers, but like its featherless cousin, the *T. rex*, it couldn't fly. What function do you think its feathers served? Think about what modern animals use feathers for.
3. *Repenomamus giganticus* was a carnivorous mammal about the size of a cat. From the plants and animals pictured here, what do you suppose it ate? (Hint: It wasn't insects.)
4. Scientists studied plant fossils and determined that the Liaoning Forest was warm and dry. What can you tell about the climate in your area from looking at trees and plants?

DINO-MITE FACT!

If dinosaurs didn't swim, how come their fossils were found in this fossilized lakebed? Dinosaurs were washed into the lake after they died. They were then quickly buried in ash from nearby volcanoes. Because the remains were preserved so rapidly, many of the Liaoning fossils show almost the entire organism, including its hair, feathers, and what it ate for dinner!

ANSWERS 1. Birds and dinosaurs are both bipedal (walk on two legs), have similar hands and feet, small skulls, and feathers. Birds and dinosaurs use feathers for flight, display, camouflage, and insulation (warmth). These feathers probably insulated the dinosaur. 3. Baby and smaller dinosaurs! 4. Answers may vary.