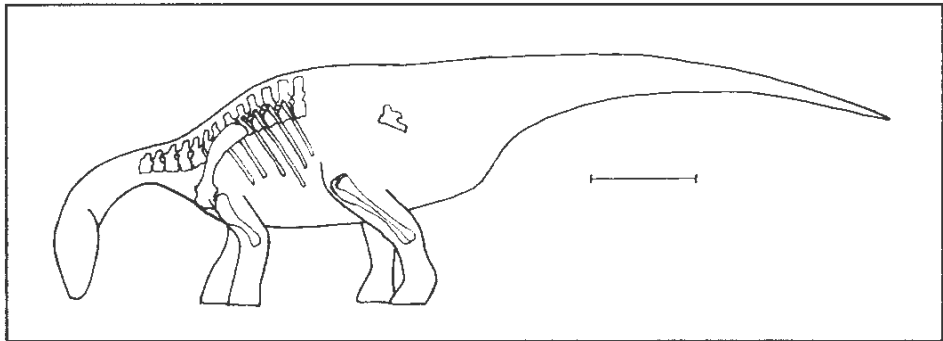


A Baby Dinosaur From the Land of the Giants



Outline of a *Camptosaurus* hatchling showing the preserved bones of the new specimen from Dinosaur National Monument. Scale bar = 1 inch.

By Daniel J. Chure

The dinosaur quarry within the Visitor Center at Dinosaur National Monument (DINO) is well known for its spectacular dinosaur fossils – the remains of some of the largest animals ever to walk the Earth. However, not all dinosaurs were giants and even those that were began life as small hatchlings.

The main dinosaur producing layer at DINO is a sequence of terrestrial sediments known as the Morrison Formation. These rocks were deposited during the late Jurassic some 150 million years ago. Sandwiched in the Morrison in this area are over 30 separate volcanic ashes spewed from Jurassic volcanic highlands near the Utah - Nevada border. In late 1991 a small excavation in one of these ashes resulted in the discovery of a number of fossil vertebrates. Upon detailed preparation in laboratory one of these fossils turned out to be an unexpected treasure and one of the rarest of all dinosaur finds – the remains of a dinosaur that died quite soon after hatching from its egg.

The specimen is a partial skeleton consisting of a scapula and coracoid (shoulder blade) with an articulated humerus (upper arm bone), an articulated series of 13 vertebrae from the neck and trunk, half a dozen ribs, an articulated tibia-fibula (lower leg bones), and a part of the pelvis. The specimen is

very small, with a scapula-coracoid length of 20mm, while each vertebrae measures a mere 3-4 mm in length. The estimated overall length for the hatchling is 240 mm (9 inches).

Although the specimen is small, it shows several skeletal features very similar to those found in the bipedal herbivorous dinosaur *Camptosaurus* and it can be provisionally referred to that genus. *Camptosaurus* is known from a number of upper Jurassic localities in North America and England. Several species have been described, the largest has an

adult length of some 8 meters! Thus, the small individual from Dinosaur is not only a hatchling, but was probably only a few days old at death. This is the only hatchling *Camptosaurus* known and one of the few dinosaur hatchlings found anywhere.

A formal description of this specimen is being prepared for publication. However, the significance of the hatchling transcends its mere description. Any depositional environment that preserves a fragile specimen such as the skeleton of a hatchling dinosaur may also contain skeletons of lizards, mammals, frogs, salamanders, and the other small, poorly known contemporaries of the dinosaurs. Remains of any of these groups would be an important addition to our knowledge of the Morrison community. More important, however, is the fact that an individual as small as this hatchling is not likely to have been capable of traveling long distances. Thus, it is possible that the level from which it was recovered contains fossilized nests and breeding grounds. Field work in the summer of 1992 will focus on additional excavation at the site and exploration of lateral continuations of the horizon in the hope of finding additional hatchling and/or nests. With a little luck, Dinosaur National Monument will become famous not only as a graveyard of the dinosaurs but as a nursery as well!

"Paleontologists have learned much about the timing, magnitude, selectivity, and recovery patterns of the major extinction events, but the implications for present biodiversity is still not well understood. The fossil record is, however, our only direct source of information on how biological systems respond to large-scale perturbations and thus can provide important insights into potential outcomes if habitat destruction or climate change proceeds unchecked."

Dr. David Jablonski (Univ. of Chicago)