

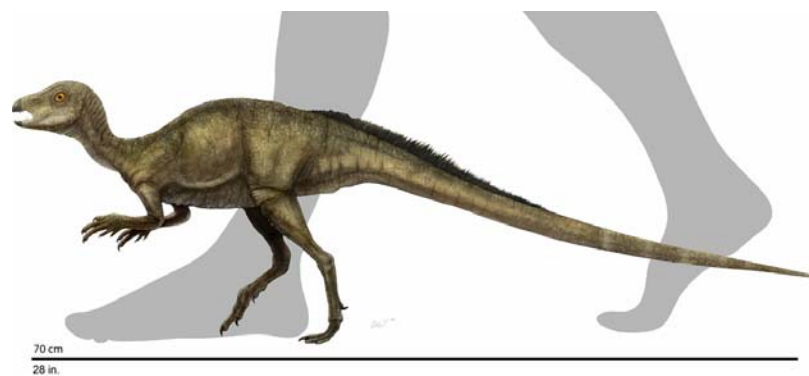
SMALLEST NORTH AMERICAN DINOSAUR DISCOVERED

Natural History Museum of Los Angeles County's Dr. Luis Chiappe Co-Authors Paper; Species Named for Museum's Board of Trustees President

Embargoed For Print Release: October 21, 2009; Online Release 4pm PST/ 7pm EST Tuesday, October 20, 2009

Los Angeles, CA—A new dinosaur species, *Fruitadens haagarorum*, is the smallest dinosaur ever discovered from North America. The tiny *Fruitadens* weighed less than a kilogram (two pounds) and was just 70 cm (28 inches) in length. The remarkable fossils of *Fruitadens*, housed at the Natural History Museum of Los Angeles County were discovered in Colorado in the late 1970s. The species was recently identified and named by an international team of scientists, led by Dr. Richard Butler of the Bavarian State Collection for Paleontology, Munich, Germany, and including Natural History Museum Dinosaur Institute Director Dr. Luis Chiappe. Their findings appear today in the British science journal *Proceedings of the Royal Society B*.

In addition to Butler and Chiappe, other authors are Dr. Laura Porro of the University of Chicago; Dr. Peter Galton of the University of Bridgeport; Dr. Gregory Erickson of the Florida State University; and Dr. Don Henderson of the Royal Tyrrell Museum of Paleontology, Canada.



A reconstruction of the *Fruitadens*. Courtesy of the Natural History Museum of Los Angeles County Dinosaur Institute. Reconstruction by Doyle Trankina, NHM Dinosaur Institute, 2009.

For the scientific team, *Fruitadens* is just the latest step in unraveling the astounding story of dinosaur evolution.

“*Fruitadens* comes from a series of rocks, the Morrison Formation, which paleontologists have studied intensively for 130 years, and from which dozens of dinosaur species are already known,” says Butler. “Yet it is still possible to discover completely unique and remarkable species. If dinosaur ecosystems were that diverse, who knows what astonishing beasts are waiting for us to discover?”

The agile, fast-running *Fruitadens* lived in the Late Jurassic period (about 150 million years ago). He darted between the legs of some of the largest known long-necked sauropod dinosaurs, such as *Brachiosaurus*, and giant meat-eating dinosaurs such as *Allosaurus* and *Torvosaurus*.

Parts of the skull, vertebrae, arms and legs of four individuals are known—all of them housed at the Natural History Museum of Los Angeles County and some on view now in the Museum's *Dino Lab*. By examining the fine-scale internal structure of the leg-bones, the team discovered that the largest individuals of *Fruitadens* were probably young adults of four years age. Growth was close to completion, indicating that *Fruitadens* was one of the smallest of all dinosaurs.

“This discovery highlights how strongly biased against the smallest spectrum of body sizes is the dinosaur fossil record and how critical it is to learn more about the tiny dinosaurs that lived alongside the popular behemoths,” Chiappe says. “*Fruitadens* is the smallest known dinosaur from North America; it’s one of the smallest dinosaurs, period. It tells you once again how dinosaurs range in size, from animals that were barely two pounds in weight to animals that were tens of tons in weight. That knowledge opens the door to further research about their feeding strategies and diets.”

Fruitadens belonged to the heterodontosaurids, an important group of early dinosaurs previously unknown from North America, and is one of the latest surviving members of this group. Like other heterodontosaurids, *Fruitadens* possessed an unusual combination of different shaped teeth, including a canine-like tooth at the front of the lower jaw and leaf-shaped teeth in the cheek region. This unusual dentition, combined with the small body size, led the scientific team to suggest that *Fruitadens* may have fed upon both plants and animals.

“People usually classify dinosaurs by whether they are meat or plant eaters,” Chiappe says. “But in reality, the more we know about their diversity, we recognize some of them were in between. We’re realizing the way of classifying of them as either plant or meat eater is too simplistic. This is a good example of an animal that probably lived on both, plants and bugs, at the same time.”

***Fruitadens*’ Significance at Natural History Museum of Los Angeles County**

The genus name *Fruitadens* refers to the area of Fruita in Colorado, where the fossils were discovered, and the Latin word for tooth. The specific name (a.k.a. the second part of binominal nomenclature name) *haagarorum* honors Natural History Museum of Los Angeles County donor and Board of Trustees President, Paul Haaga and family.

Fruitadens haagarorum will appear in several different contexts inside the Museum: today and in Summer 2011 when a new exhibit *Dinosaur Mysteries* opens to the public. Visitors to the Museum’s *Dino Lab* can view the tiny bones of *Fruitadens haagarorum* under a microscope and watch NHM LA Dinosaur Institute Sculptor and Preparator Doyle Trankina as he reconstructs five *Fruitadens* fleshed out from paleontological findings. Once finished, these tiny creatures will be posed alongside a 68-foot-long *Mamenchisaurus* to indicate the size difference of the two specimens. *Fruitadens*’ future home will be inside the Museum’s new dinosaur hall, alongside other recent and pivotal Museum discoveries such as “Thomas” the teenage *Tyranosaurus rex* and portions of “Gnatie” a well-preserved skeleton of a 150 million-year-old sauropod.

When it opens to the public, *Dinosaur Mysteries* will present the greatest number of dinosaur fossils in any single exhibit in the world. The exhibit will explore the great questions, or mysteries, that have driven both scientific inquiry and the popular imagination surrounding dinosaurs—using *Fruitadens* to illustrate previously held ideas about dinosaur size. One of the interactive components of the new exhibit will feature a cast of a *Fruitadens* fossil that Museum visitors can pick up — it will weigh what a real life *Fruitadens* would have weighed. Also on display will be the creature’s humerus bone juxtaposed by five-foot-long humerus of a brachiosaur.

About the Museum

The Natural History Museum of Los Angeles County was the first dedicated museum building in Los Angeles, opening its doors in 1913. It has amassed one of the world’s most extensive and valuable collections of natural and cultural history — with more than 35 million objects, some as old as 4.5 billion years. The Natural History Family of Museums includes the Natural History Museum of Los Angeles County in Exposition Park, the Page Museum at the La Brea Tar Pits, , and the William S. Hart Park and Museum in Newhall, California. . The Family of Museums serves more than one million families and visitors annually, and is a national leader in research, exhibitions and education.

The Natural History Museum of Los Angeles County is located near downtown in Exposition Park at 900 Exposition Blvd., Los Angeles. Open daily from 9:30 am to 5 pm; Tickets are \$9 for adults, \$6.50 for children. For more information, visit the Museum's website at www.nhm.org or call (213) 763-DINO.

NHM NEXT

The completed renovation of the Beaux-Arts 1913 Building in Spring 2009 has set the stage for the Museum's rollout of new visitor experiences leading up its centennial in 2013. The milestone re-opening of the 1913 Building will begin July 2010 with new exhibitions inside its iconic Rotunda and the *Age of Mammals* galleries. In July 2011, the Museum will open *Dinosaur Mysteries*, the highly-anticipated return of a dedicated dinosaur hall. *Under the Sun*, an exhibition focusing on the Southern California environmental history will open Spring 2012.