

Four-winged dino fossils discovered

LIAONING (AP) — Fossil hunters in China have discovered what may be one of the weirdest prehistoric species ever seen — a four-winged dinosaur that apparently glided from tree to tree.

The 128-million-year-old animal — called Microraptor gui, in honor of Chinese paleontologist Gu Zhiwei — was about 1 1/2 feet long and had two sets of feathered wings, with one set on its forelimbs and the other on its hind legs.

Exactly where the creature fits into the evolution of birds and dinosaurs is not clear. But researchers speculated that it developed around the same time as or even later than the first two-wing, birdlike dinosaur, Archaeopteryx, which is believed to have flown by actually flapping its wings.

Paleontologists were intrigued by the discovery. They have seen gliding dinosaurs before, but never one with feathers. And they have never seen a four-winged dinosaur before.

"It would be a total oddity — the weirdest creature in the world of dinosaurs and birds," said Luis Chiappe, a paleontologist at the Natural History Museum of Los Angeles County who did not participate in the dig.

Scientists said the fossils — discovered in the Chinese province of Liaoning, northeast of Beijing, at a site that has yielded several important specimens in recent years — revive a debate between two theories of how dinosaurs might have evolved into birds.

One theory holds that some of these apparent bird ancestors learned to flap their wings to power flight while they were gliding from tree to tree. The other theory suggests they learned to fly by increasing their running speed with their wings and taking off from the ground.

The latest find tends to support the gliding-in-trees theory. "It's a phenomenal find," Chiappe said. "We don't have anything that resembles this in the whole dinosaur and bird spectrum."

Details of the fossils appear in Thursday's issue of the journal Nature.

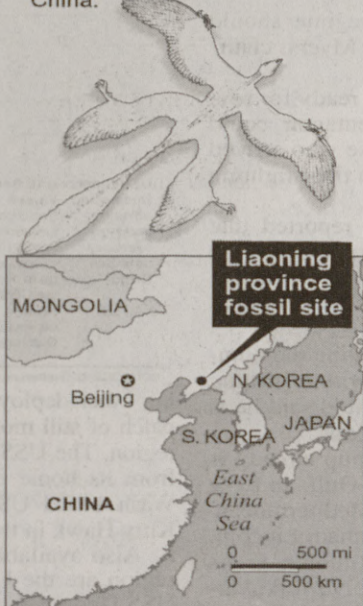
Paleontologist Xing Xu of the Institute of Vertebrate Paleontology and Paleoanthropology at the Chinese Academy of Sciences described six fossils with leg feathers arranged in a pattern similar to wing feathers in modern birds.

"They are long and some have asymmetrical vanes like flight feathers," Xu said.

The feathered legs amount to rear wings, Xu said. He speculated they could have represented an intermediate stage of development before the emer-

Four-winged dino

The fossil of a 128-million-year-old dinosaur was found in China.



SOURCES: Nature; ESRI

gence of true flight powered by flapping the wings. Or, the feathered legs could have been an evolutionary dead end, other researchers said.

Scientists believe Microraptor gui probably did not fly by flapping its wings, because of the way the rear legs are set in the hip sockets and because the rear legs probably would have encountered turbulence from flapping front wings. That suggests instead that both sets of wings were used just for gliding, Chiappe said.

Other scientists said the fossils add diversity to the story of flight, even if they do not immediately provide answers.

Ken Dial, head of a biological flight laboratory at the University of Montana, said there is room for both gliding and flapping dinosaurs in evolutionary history.

"Gliding represents a splendid example of convergent evolution," Dial said. "We should not be surprised to unearth gliding dinosaurs as we have numerous living-day examples of gliders in nearly all the vertebrate groups — reptiles, mammals, birds and even parachuting amphibians."

Last week, Dial reported in the journal Science that the way young birds such as turkeys and quail use their wings suggests ancient birds eventually learned to fly by running and flapping.

Paul Sereno, a University of Chicago paleontologist, said the best way to determine whether Microraptor gui was an intermediate stage in bird evolution or a dead end is to find other dinosaur fossils with feathered legs.

Sereno called the Xu study a landmark paper but added: "Whether this represents an intermediate form that all birds passed through is a question that's going to be hotly debated."

THURSDAY

No Cover ALL Ladies 18+ ALL NIGHT
spinning the latest in hip/hop, techno, dance, and breakbeats

\$1.00 Bar Drinks ALL NIGHT!!
... and come try our exclusive

\$2.00 FLAMING FU's

THE CONCEPT

FRIDAY

Ladies Night

ALL Ladies FREE!

\$3.00 Cosmopolitans
\$2.00 Cheesecakes

doors open @ 8

January 29th

THE CONCEPT
presents

flickerstick

with Twospay & Lesermor

\$10 pre-sale \$12 door
Tickets available @ Journey's Post Oak Mall or On-Line
979.681.8698

www.conceptnightclub.com doors open 8pm

Only one local calling plan calls all of Texas home.

Get a Verizon Wireless border-to-border, all-Texas calling plan and you won't have to pay for roaming charges in Texas or extra states you don't need.

Unlimited Night & Weekend Minutes

Now with **500** anytime minutes
all when calling from your home airtime rate area.

plus

1000 anytime mobile to mobile minutes
on our mobile to mobile network.

NEW! Texas Local DigitalChoice Plan now just **\$39.99**
monthly access with annual agreement.

- NO roaming fees in Texas
- NO long distance charges, from ANYWHERE in your Texas-wide, home airtime rate area

CDMA tri-mode phone with specified software required. Calls placed outside home airtime rate area are 69¢/min.

Official Wireless Provider of the Houston Texans

Get a Motorola V120e FREE when you buy any of these phones.

Motorola V120e
NOW JUST \$29.99

Samsung a310
NOW JUST \$49.99
After mail-in rebate \$99.99 sale price - \$50.00 mail-in rebate

Motorola T720
NOW JUST \$79.99
After mail-in rebate Sale price \$179.99. Now \$79.99 after \$100 mail-in rebate and trade-in of any working mobile phone with battery.

New two year agreement and activation required on each phone. While supplies last.

Test the Best VERIZON WIRELESS HAS THE BEST NATIONAL WIRELESS NETWORK IN AMERICA.
But don't just take our word for it. Test it for yourself and if you're not 100% satisfied during your first 15 days, simply return your phone and pay for only the service you've used. It's all a part of our Worry Free Guarantee to you.

NEWS IN BRIEF

Indian sari cloth helps clean drinking water
WASHINGTON (AP) — Simply filtering water through old sari fabric may be enough to reduce cholera cases by about half in rural villages in Bangladesh, researchers say.

In a study appearing this week in the Proceedings of the National Academy of Sciences, scientists filtered pond and river water through nylon mesh and through old, much-washed sari cloth. They concluded that the sari solution worked best and could save lives in villages where the waterborne disease annually sickens many thousands of people.

"Sari cloth is cheaper and we found that it is much more effective than the nylon mesh," said Rita R. Colwell, a professor of microbiology at the University of Maryland, College Park, and primary author of the study.

Colwell said researchers discovered in laboratory studies that most of the cholera bacteria in ponds, rivers and other standing water is attached to or in the gut of a copepod, a type of zooplankton commonly found in standing water.

Jason's Deli

* 10% off Mondays with student ID

5 p.m. - 10 p.m.
* Dine in only

We deliver till 9 p.m.

1404-A Texas Ave., C.S. • 764-2929

VERIZON WIRELESS COMMUNICATIONS STORES
Open Sundays

Drive responsibly. Call with care.

COLLEGE STATION
1901 Texas Ave., South
In the new Hobby Lobby Shopping Center
979-696-3112

Night & Weekend hours: Mon-Fri. 9:01pm-5:59am Sat. 12am-Sun. 11:59pm.
Important Consumer Information: Subject to Customer Agreement and Calling Plan. \$35 activation fee applies per line. \$175 early termination fee applies per line after 15 days. Requires credit approval. Not available in all markets. Cannot be combined with any other phone offers. Usage rounded to next full minute. Unused allowances lost. See Worry Free Guarantee Brochure and our Return/Exchange policy for full details. Allow 10-12 weeks for rebate check. Must be a customer for 30 consecutive days for rebate. Phone may not be returned after rebate form has been submitted. Mobile to mobile calls made during Night and Weekend hours will deplete mobile to mobile allowance. Geographic and other restrictions apply. Subject to taxes, charges, and other restrictions. See store for details. Best Network claim based on reliability studies and network advantages. See www.verizonwireless.com/bestnetwork for details. Limited time offers. J.D. Power and Associates 1996-2002 U.S. Wireless Industry Services Studies™. 2002 study based on responses from 17,659 wireless telephone subscribers in 27 of the top U.S. markets. Houston market covers: Brazoria, Fort Bend, Harris, Liberty, Montgomery and Waller Counties in the state of Texas. www.jspower.com. ©2003 Verizon Wireless.