

Fossils shed new light on mammals

By WILL DUNHAM
in Washington
Reuters

It may not have been the friendliest place for small furry creatures, but three newly identified squirrel-like mammals thrived in the trees during the Jurassic Period, with dinosaurs walking below and flying reptiles soaring above.

Scientists announced on Wednesday the discovery in China of fossils belonging to the three creatures in a find that sheds light on a poorly understood collection of ancient mammals, and indicates that mammals as a group appeared earlier than some experts thought.

The three species come from a group called haramiyids that previously had been known only from isolated teeth and fragmented jaws. Scientists had not even been sure they were mammals at all.

The nicely preserved fossils from Liaoning province proved definitively they were mammals, in part because of the presence of three bones of the middle ear characteristic of all mammals from shrews to whales to people.

The three species — whose scientific names are *Shenshou lui*, *Xianshou linglong* and *Xianshou songae* — date from about 160 million years ago, a time when dinosaurs ruled the land. But a number of recent fossil discoveries have shown that mammals were far more diverse during that period than previously recognized.

The three species likely looked like small squirrels, with slim bodies and elongated fingers and toes, indicating they were dedicated tree dwellers. They had long and probably prehensile, or grasping, tails, another feature that helped them stay in the tree branches.

"I would predict that they spent even more time in the

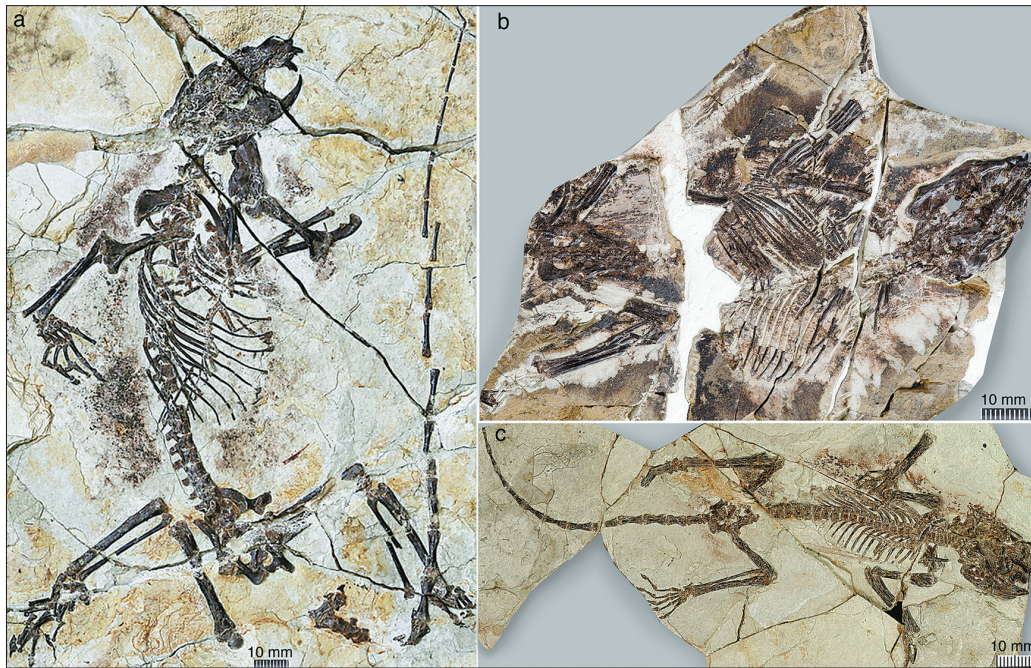


PHOTO PROVIDED BY CHINESE ACADEMY OF SCIENCES

Above: Fossils of the three newly identified mammal species from Northeast China's Liaoning province, which have scientific names of *Shenshou lui* (a), *Xianshou linglong* (b) and *Xianshou songae* (c). The species date from about 160 million years ago.

Right: An illustrated display highlights two new mammal genera, *Shenshou* and *Xianshou*, demonstrated by researchers from the Institute of Vertebrate Paleontology and Paleoanthropology at the Chinese Academy of Sciences.

trees than squirrels," said Jin Meng, a vertebrate paleontologist at the American Museum of Natural History in New York, who led the study published in the journal *Nature*.

Based on the shape of their teeth, they probably were omnivorous, eating insects, nuts and fruit, Meng said. The remains were so well preserved that they showed more than just the hard parts such as teeth and bones that commonly fossilize, but also soft parts such as fur and the animal's guts, he added.

The three species had an

estimated weight ranging from about that of a mouse, 28 grams, to that of a small squirrel, about 280 grams. While they may have looked and acted like today's squirrels, they were only very distantly related to them.

The researchers said these fossils, along with other evidence, suggest that the first true mammals that evolved from mammal-like ancestors appeared perhaps 208 million years ago. Some scientists have contended that mammals entered the picture millions of years later than that.



Sino-Australian youth project set to reshape ties

By XINHUA in Sydney

An ambitious Sino-Australian youth-driven project will fundamentally reshape ties between the nations and lead to a renaissance in bilateral enterprise, an Australian government minister said on Thursday.

With relations between the two countries at a critical juncture, the Australian government has placed a major focus on building entrepreneurship, innovation and the international capabilities of the Australian businesses learning and growing with China, Minister of Small Business Bruce Billson told Xinhua News Agency.

The China Australia Millennium Project will enhance the innovation infrastructure and lead to "long-term outcomes for the next generation of cross-border leaders", according to Billson.

The project was launched last week in Shanghai by Mike Baird, premier of the Australian state of New South Wales.

The inaugural China Australia Millennium Project will be a five-day event in May 2015 staged in collaboration with Vivid Ideas, the Asia-Pacific region's annual celebration of innovation, creativity and community.

The event will bring 100 innovators ages 18 to 35 to Australia from China and match them with 100 like minds to share five days of ideas, imagination and action.

"Successful applicants will be asked to work together to consider challenges common to both countries before being given an opportunity to pitch their ideas to compete for grants, venture capital, and consideration in the Premier's Innovation Initiative," Baird said.

Billson added, "Initiatives

like the project will drive a renaissance in enterprise in Australia by bringing together 200 young innovators from Australia and China for a five-day summit."

Andrea Myles, the project's architect and chief executive, said it will connect, engage and feature the most outstanding 200 ideas and the young people who conceived them. They will engage in "five intense days of brain-storming, mentoring and re-imagining, climaxing with the presentation of market-ready concepts".

Myles, a China engagement expert with a track record of cross-border leadership, believes the project's bold vision can re-energize the two-way relationship.

"Young people stand to lose or gain the most in this relationship, not the opinionated billionaires that unfortunately seem to dominate the public dialogue," she said. "The project aims to empower young people by taking their innovation, their imagination and their vision and fast-tracking it to a reality."

Philipp Ivanov, manager of the Australia-China Council at the Department of Foreign Affairs and Trade, said the project is supported, among many other government and private sponsors, by the council.

It sees the project as a "new platform with significant potential to enable future champions of bilateral engagement to meet, build relationships and make practical contributions to Australia-China relations and broad global challenges."

Billson added, "The event will give young entrepreneurs from both countries the opportunity to tackle common issues and produce real outcomes through innovative thinking and collaboration with industry."

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Chengdu: Thriving ancient and modern trade hub

By LI YU AND PENG CHAO
in Chengdu

While the ancient Silk Road is famed throughout the world, another route, the South Silk Road that starts from Chengdu in Sichuan province, remains little known.

A 2,000-kilometer route that began operation hundreds of years earlier than its more famous counterpart, the South Silk Road went through Yunnan province, then Myanmar or Tibet, to reach India and beyond.

An exhibition from Sept 17 to 19 titled "Silk Road and Creative Cities" at UNESCO headquarters in Paris will give an all-round introduction to the ancient route.

"We have made full preparations to inform the world about the South Silk Road and the unique cultural heritage of Chengdu by means of words, pictures, videos, cultural relic replicas and live performances," said a local official.

Sichuan cuisine, traditional Chinese calligraphy and paintings, and other works of cultural creativity with Chengdu characteristics will also be put on display, he said.

The first record of the South Silk Road is from Zhang Qian, a diplomat in the Western Han Dynasty (206 BC-AD 24), who saw bamboo sticks and Shu cloth in Afghanistan, according to *Shi Ji*, an authoritative history written in the dynasty.

Bamboo sticks and such cloth were mostly produced in Shu, the ancient name for Sichuan province and other southwestern regions.

Zhang then found out a path that linked southwestern China to South Asia.

Massive amounts of silk, tea, china and lacquer produced in Chengdu were sold to South and Central Asia over the route.

It was after Zhang discovered the South Silk Road that he opened the North Silk Road, which started from Chang'an (today's Xi'an), the then national capital. The North Silk Road went through what is today Xinjiang Uygur autonomous region, India, Iran and the Middle East to reach the Mediterranean Sea.

Brocade city

Chengdu was famous for its high-quality silk in ancient times. Can Cong, the first king of Shu, was an expert in breeding *can*, the silk-worm that spins silk.

"It is widely acknowledged that Shu brocade is one of the four greatest brocades of China," said Wang Yi, director of Chengdu Museum.

The South Silk Road led to extensive business and cultural exchanges between Chengdu and the countries and regions in the west.

Archaeological discoveries in Chengdu's Qionglai county, an important station along the South Silk Road, unearthed a number of pottery figurines of Hu people — nomads living on the northwestern border of ancient China — and daily utensils from Persia.

A gold mask unearthed in the Jinsha Ruins of Chengdu, which dates back 3,000 years, is believed by some scholars to be the result of absorbed cultural elements from western Asia and the

Near East.

The exchanges lead to the open and inclusive character of the city and its rich cultural heritage.

Chengdu is one of China's most famous historical and cultural cities. It was awarded the title of "Gastro-nomic Capital" by UNESCO in 2010, only the second city in the world and first in Asia to win such an honor.

The rich cultural heritage has been a strong boost for the development of Chengdu's cultural creative industry, which continues to drive the city's economic development. Now the world has taken notice.

Part of the Chengdu Creativity and Design Week to be held in October, an activity inviting people from around the world to draw colored pictures for a giant panda named "51" has caught global attention.

People from at least 19 countries including Germany, Switzerland, Italy and the United States are participating.

Pictures of "51" served as the mascot for a Chinese film convention at the recent 71st Venice International Film Festival.

Following the national strategy to develop western China and build the Silk Road economic belt, local government officials said Chengdu will grasp the opportunity and lead western China's opening up to the outside world, as it has through history.

As a major hub in southwestern China, the city is already home to 255 Fortune Global 500 companies. Eleven countries now have consulates general in Chengdu.

Chengdu Shuangliu International Airport, the fourth-largest in China in passenger



Ancient emperor's clothes made of Shu brocade at the Chengdu Museum.

PHOTOS BY WANG JUN / FOR CHINA DAILY



The ancient name for Sichuan, Shu was famed for its silk, which was found as far as 2,000 years ago.



Skilled practitioner makes Shu brocade at the Chengdu Museum.

traffic, has 74 international flights to a range of cities including London, San Fran-

cisco, Amsterdam, Abu Dhabi and Melbourne.

Chengdu is also the first

city in western China to offer a 72-hour visa-free policy that allows citizens from 51 coun-

tries with a valid visa and air ticket to a third country to stay up to three days.