

World News Roundup

Paleontology

Unique to Alaska

New duck-billed 'dinosaur' found

ANCHORAGE, Alaska, Sept 23, (AP) — Fossils from a unique plant-eating dinosaur found in the high Arctic of Alaska may change how scientists view dinosaur physiology, say Alaska and Florida university researchers.

A paper published Tuesday concluded that fossilized bones found along Alaska's Colville River were from a distinct species of hadrosaur, a duck-billed dinosaur not connected to hadrosaurs previously identified in Canada and the



Erickson

Lower 48 states. It's the fourth species unique to northern Alaska. It supports a theory of Arctic-adapted dinosaurs that lived 69 million years ago in tempera-

tures far cooler than the tropical or equatorial temperatures most people associate with dinosaurs, said Gregory Erickson, professor of biological science at Florida State.

"Basically a lost world of dinosaurs that we didn't realize existed," he said.

The northern hadrosaurs would have endured months of winter darkness and probably snow.

"It was certainly not like the Arctic today up there — probably in the 40s (5 to 9 degrees Celsius) was the mean annual temperature," Erickson said. "Probably a good analogy is thinking about British Columbia."

The next step in the research program will be to try to figure out how they survived, he said.

Migration

Mark Norell, curator of paleontology at the American Museum of Natural History in New York, said by email that it was plausible the animals lived in the high Arctic year-round, just like musk oxen and caribou do now. It's hard to imagine, he said, that the small, juvenile dinosaurs were physically capable of long-distance seasonal migration.

"Furthermore, the climate was much less harsh in the Late Cretaceous than it is today, making sustainability easier," he said.

Most of the fossils were found in the Liscomb Bone Bed more than 300 miles (480 kms) northwest of Fairbanks and a little more than 100 miles (160 kms) south of the Arctic Ocean. The bed is named for geologist Robert Liscomb, who found the first dinosaur bones in Alaska in 1961 while mapping for Shell Oil Co.

Liscomb thought they came from mammals. They remained in storage for about two decades until someone identified the fossils as dinosaur bones, said Pat Druckemiller, earth sciences curator at the University of Alaska Museum.

Researchers over the next 25 years excavated and catalogued more than 6,000 hadrosaur bones, far more than any other Alaska dinosaur. Most were from small juveniles estimated to have been about 9 feet (2.7 meters) long and 3 feet (90 centimeters) tall at the hips.

"It appears that a herd of young animals was killed suddenly, wiping out mostly one similar-aged population to create this deposit," Druckemiller said.

They initially were thought to be Edmontosaurus, a hadrosaur well-known in Canada and the U.S., including Montana and South Dakota. The formal study of the Alaska dinosaur, however, revealed differences in skull and mouth features that made it a different species, Druckemiller said.

Vegetation

Researchers have dubbed the creature Ugrunaaluk kuukpikensis (oo-GROO'-nah-luk KOOK'-pik-en-sis). The name means "ancient grazer" and was chosen by scientists with assistance from speakers of Inupiat, the language of Alaska Inupiat Eskimos.

The dinosaurs grew up to 30 feet (9 meters) long. Hundreds of teeth helped them chew coarse vegetation, researchers said. They probably walked primarily on their hind legs, but they could walk on four legs, Druckemiller said.

The Liscomb Bone Bed during the Cretaceous Period was hundreds of miles farther north in what's now the Arctic Ocean, Druckemiller said.

University of Alaska Fairbanks graduate student Hirotsugu Mori over five years completed his doctoral work on the species. The findings were published Tuesday in "Acta Palaeontologica Polonica," an international paleontology quarterly journal.

Researchers are working to name other Alaska dinosaurs.

"We know that there's at least 12 to 13 distinct species of dinosaurs on the North Slope in northern Alaska," Druckemiller said. "But not all of the material we find is adequate enough to actually name a new species."



In this Sept 10, 2014 file photo, a 3,300-year-old bust of Queen Nefertiti stands on its socle, at the New Museum in Berlin, Germany. (AP)

Official says Egypt approves radar for Nefertiti tomb quest

The Egyptian Antiquities Ministry granted preliminary approval for the use of a non-invasive radar to verify a theory that Queen Nefertiti's crypt may be hidden behind King Tutankhamun's 3,300-year-old tomb in the famous Valley of the Kings, a ministry official said Tuesday.

A security clearance for the radar's use will probably be obtained within a month, said Mouchira Moussa, media consultant to Antiquities Minister Mamdouh el-Damaty.

"It's not going to cause any damage to the monument," Moussa said.

Egyptologist Nicholas Reeves recently published his theory, but it has yet to be peer-reviewed. He

believes that Tutankhamun, who died at the age of 19, may have been rushed into an outer chamber of what was originally the tomb of Nefertiti, which has never been found.

British archaeologist Howard Carter discovered Tut's tomb in Luxor's Valley of the Kings in 1922 — intact and packed with antiquities including Tut's world-famous golden mask.

In his paper, Reeves claims high-resolution images of King Tut's tomb include lines underneath plastered surfaces of painted walls, showing there could be two unexplored doorways, one of which could potentially lead to Nefertiti's

tomb. He also argues that the design of King Tut's tomb suggests it was built for a queen, rather than a king. (AP)

The Japanese radar, which will be operated by an expert who will accompany the equipment from Japan for the inspection once the final approval is granted, will look beyond the walls that Reeves says may be leading into the suspected tomb and the other chamber, Moussa said.

Reeves, who has been in contact with the minister, arrives in Cairo Saturday, Moussa said, and he and el-Damaty will travel to Luxor to inspect the tomb.

"We're very excited... It may not be a tomb belonging to Nefertiti, but it could be a tomb belonging to one of the nobles," said Moussa. "If it is Nefertiti's, this would be very massive."

Already, there's a mummy at the Egyptian Museum in Cairo that has strong DNA evidence of being Tut's mother. DNA testing also has provided strong evidence suggesting that Tut's father likely was the Pharaoh Akhenaten, the first pharaoh to try switching Egypt to monotheism. The DNA testing also brought a new discovery: that Tut's mother was Akhenaten's sister.

Still, some archaeologists believe

the two were probably cousins and that this DNA result could be the product of three generations of marriages between first cousins — and that Nefertiti, Akhenaten's chief wife, may in fact have been Tut's mother.

Many Egyptologists believe there were probably one or two co-pharaohs between Akhenaten and Tutankhamun. Some, including Reeves, believe at least one of them may have been Nefertiti, who may have even ruled Egypt by herself even for just a few months. Finding her tomb could provide further insight into a period still largely obscured, despite intense worldwide interest in ancient Egypt. (AP)

Climate

Starbucks, Nike join 100% renewable energy pledge

Fossil fuel divestment reaches \$2.6 trln

NEW YORK, Sept 23, (Agencies) — A campaign to abandon fossil fuels to boost the fight against climate change has rapidly picked up steam, with institutions worth \$2.6 trillion pledging to divest, a study said Tuesday.

The commitment, made months before a high-stakes United Nations climate meeting in Paris, marks a 50-fold increase from a year ago when the Rockefeller family announced it was divesting from fossil fuels.

The study from consultancy Arabella Advisors found that 436 institutions and 2,040 people worth a total of \$2.6 trillion have now pledged to get out of fossil fuels, either entirely or in particular sectors such as coal.

Some of the most notable have been the University of California System and the Norway Pension Fund, which has drawn particular notice as the Scandinavian country — like the Rockefeller family — grew wealthy thanks to oil production.

One of the latest, if least surprising, pledges came from the Leonardo DiCaprio Foundation, the environmental charity led by the actor and climate activist.

"Climate change is severely impacting the health of our planet and all of its inhabitants, and we must transition to a clean energy economy that does not rely on fossil fuels, the main driver of this global problem," DiCaprio said in a statement issued as he sat in the audience for the study's release in New York.

The actual amount pulled from fossil fuels was not announced but major investors generally have between three and eight percent exposure to fossil fuels, said Tom Van Dyck of the SRI Wealth Management Group which promotes socially conscious finance. That would mean at least \$78 billion has been divested.

Fossil fuels — especially coal, but to a lesser extent oil and gas — contribute to emissions of carbon dioxide that have led to the planet's rising temperatures.

Scientists warn that, if left unchecked, global warming will seriously worsen droughts, floods and other disasters.

UN climate chief Christiana Figueres said that the divestment pledges offered momentum for a year-end conference in Paris that aims to draft a new global agreement to tackle the scourge.

Beyond the moral case, Figueres argued that fossil fuels would increasingly be a bad business choice as opportunities rise for cleaner energy.

"The alternative of business as usual will leave firms and investors locked into hundreds of billions of dollars in stranded fossil fuel assets as emissions are ratcheted downwards and renewable energies win the price parity race," she said.

Profits of major oil companies have plummeted since last year, although industry analysts point to a variety of reasons including high output from Saudi Arabia, the fracking boom in the United States and easing tensions with Iran.

US activists were at the forefront of the divestment movement but the report by Arabella Advisors found that it has spread, especially to Australia, Britain and Canada.

Religious institutions have divested some \$24 billion from fossil fuels, said the Reverend Fletcher Harper, executive director of advocacy group GreenFaith.

"For faith communities, the Earth is our home and it is a gift, and we intend to pass it on to our next generations in at least as good condition as we received it," he said.

Divest

Religious groups that have decided to divest include the Church of England, the Church of Sweden, the Episcopal Church, the United Church of Christ, the Lutheran World Foundation and the Unitarian Universalist Association.

Minneapolis and Seattle are among cities that plan to divest. Universities include Georgetown, Oxford and Stanford.

A year ago during a similar week of climate events in New York, the Rockefeller family announced that its \$860 million philanthropic group was leaving fossil fuels.

The family grew wealthy thanks to Standard Oil, making John D. Rockefeller the world's richest person a century ago.

DiCaprio on Tuesday joined more than 400 institutions and 2,000 individuals who have promised to divest from fossil fuels, as new research showed they hold total assets of \$2.6 trillion.

Reveals

The report by investment experts reveals the movement to take money out of fossil fuels like oil, coal and gas has grown 50-fold in one year.

"We must transition to a clean energy economy that does not rely on fossil fuels, the main driver of this global problem," the celebrity environmentalist added in a statement.

Local governments and investors from 43 countries have committed to stop supporting fossil fuels, including municipalities, pension funds, medical associations and churches, the coalition backing the movement said.

The report, launched in New York by investment consultancy Arabella Advisors, did not specify how much of the \$2.6 trillion in overall assets represented by those that have pledged to divest was invested in fossil fuels.

In the past year, activists have targeted the shareholders and creditors of fossil fuel companies and their corporate and social partners, while ramping up pressure on universities and religious institutions to stop investing in those firms.

The tactics are getting results — particularly in the United States, Britain and some Scandinavian countries, campaigners say.

"If these numbers tell us anything, it's that the divestment movement is catching fire," said May Boeve, executive director of 350.org, an online cli-

mate action group.

She said the expansion of the movement should send a clear message to world leaders ahead of UN talks in Paris, where they are due to agree on a new global deal to tackle climate change in December.

"It's time for them to follow suit, and divest our governments from fossil fuel companies too," Boeve added.

Divestment strategies differ across organisations, the coalition noted. Some are withdrawing their money from all fossil fuel companies, while others are beginning with firms involved in coal or tar sands.

A papal pronouncement issued by Pope Francis in June demanding swift action to save the planet from environmental ruin has influenced religious institutions, experts say.

Also:

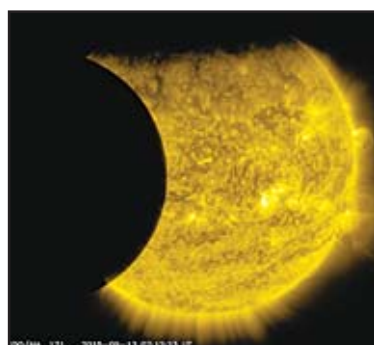
NEW YORK: Major US companies including Walmart, Starbucks and Nike vowed Wednesday to move completely to renewable energy in the long term as part of a global effort against climate change.

The non-profit Climate Group announced the latest additions to its campaign during a week of events in New York that aim to build momentum for a global agreement to fight climate change.

Consumer goods giants Johnson & Johnson and Procter & Gamble, and investment banking titan Goldman Sachs also joined the year-old effort.

"Our mission is to help people live longer, healthier and happier lives. We understand the intrinsic link between a healthy environment and human health," said Alex Gorsky, CEO of Johnson & Johnson, whose products range from bandages to pain relief capsules.

Renewable energy sources such as the sun and wind result in no emissions of carbon dioxide, the key factor behind the planet's rising temperatures that scientists fear will cause worsening scarcities and disasters.



This Sept 13, 2015 image provided by NASA shows the Moon (left), and the Earth (top), transiting the Sun together, seen from the Solar Dynamics Observatory. The edge of Earth appears fuzzy because the atmosphere blocks different amounts of light at different altitudes. This image was taken in extreme ultraviolet wavelengths, invisible to human eyes, but here colored in gold. A total lunar eclipse will share the stage with a so-called supermoon Sunday evening, Sept 27, 2015 as seen from the United States. That combination hasn't been seen since 1982 and won't happen again until 2033. (AP)

Discovery

Apple hack exposes flaw: China's "Great Firewall" may have partly to blame for the first major attack on Apple Inc.'s App Store, but experts also point the finger at lax security procedures of some big-name Chinese tech firms and how Apple itself supports developers in its second biggest market.

A malicious programme, dubbed XcodeGhost, hit hundreds — possibly thousands — of Apple iOS apps, including products from some of China's most successful tech companies used by hundreds of millions of people.

Palo Alto Networks, the U.S. internet security company that spotted the problem, says the attacker could send commands to infected devices that could be used to steal personal information and, in theory, conduct phishing attacks.

The hackers targeted the App Store via a counterfeit version of Apple's Xcode "toolkit" — the software used to build apps to run on its iOS operating system — which Chinese developers used because they could download it faster.

"I would use the phrase 'convergence of ignorance and complacency,'" said Andy Tian, CEO of Asia Innovations, a Chinese app developer. "Ignorance on the side of Apple, complacency on the side of Chinese companies."

The incident was a blow to the reputations of some of China's tech champions, in what some app makers saw as collateral damage from the tight controls Beijing places on the Internet within its borders, and weak infrastructure linking to the outside world, that make overseas downloads patchy and slow.

Companies affected by the XcodeGhost attack included Tencent Holdings Ltd, one of the world's biggest internet firms, and Uber Technologies

Inc.'s biggest challenger, Didi Kuaidi, which just completed a \$3 billion private fundraising round.

Tencent, whose WeChat messaging service is one of China's most popular apps, and Didi Kuaidi declined to comment, beyond saying that they had fixed the issue and users' data had not been compromised. (RTRS)

Italy plans Pompeii station: Italy



Tian



Dario

approved a plan to build a new train station at the ancient Roman city of Pompeii on Tuesday, one of a string of projects to promote the country's treasured archaeological sites.

Preserved under ash when nearby volcano Vesuvius erupted in 79 A.D., Pompeii is one of Italy's most popular tourist destinations, attracting more than 2 million visitors a year.

Culture Minister Dario Franceschini

is trying to promote and protect Italy's wealth of art and architecture after cuts in public funding during a three-year recession further strained a sector long dogged by mismanagement and bureaucracy.

Pompeii's managing committee approved a feasibility study conducted by the state railway operator for a new hub which is expected to cost about 35 million euros (\$38.93 million). (RTRS)