



*Rusingoryx atopocranium* may have used the bony tube in its skull to communicate at low frequencies (artist's conception).

### Odd wildebeest cousin had 'vuvuzela' in its head

In 1983, paleontologists gave a now-extinct cousin of the wildebeest the name *Rusingoryx atopocranium*, noting its oddly shaped head. That cranium, researchers reported last week in *Current Biology*, housed an S-shaped tube that may have allowed the creature to bellow at very low frequencies. The team performed CT scans on several skulls of the species unearthed on Kenya's Rusinga Island; the fossils were entombed in floodplain sediments between 40,000 and 285,000 years ago. Using computer analyses, researchers suggest that airflow through the bony

tube would have generated sound at frequencies between 248 and 746 cycles per second—a range that encompasses the drone of the South African vuvuzela (which achieved fame during the 2010 FIFA World Cup). When further modulated by the soft tissues of the throat and windpipe, the frequency could have dropped below 20 cycles per second, below the hearing threshold for most humans—and most predators on the African savanna. Although absent in all living animals, similar tubes have been found inside the skull crests of certain dinosaurs.

deal would still have to clear regulatory hurdles in Europe and the United States.

### Scandal engulfs Nobel official

STOCKHOLM | The widening scandal surrounding surgeon Paolo Macchiarini and his employment at the Karolinska Institute (KI) in Stockholm has prompted Urban Lendahl, secretary general of the Nobel Assembly, to resign. Lendahl, a developmental geneticist at KI, was involved in hiring Macchiarini in 2010. Last summer, KI cleared Macchiarini of charges that he had overstated the success of his pioneering artificial trachea implants in a series of scientific papers. But in January, a Swedish documentary suggested that Macchiarini didn't properly inform his patients about the operation's risks (six of his eight patients have died), and questioned KI's handling of the scandal. KI announced last month that it had "lost confidence" in Macchiarini and has said it will launch an external investigation into the university's interactions with him. A

statement from the Nobel Committee this week said that Lendahl expected to be involved in the investigation and was giving up his work on the committee "out of respect for the integrity of the Nobel Prize work." <http://scim.ag/Lendahlresig>

### FINDINGS

#### A 6th century 'Little Ice Age'

Historians have long identified a "Little Ice Age" period of modest cooling in the Northern Hemisphere that lasted roughly from the 16th to the 19th centuries. But a thousand years earlier, another cold spell even more profoundly chilled the Northern Hemisphere for more than a century, researchers reported this week in *Nature Geoscience*. Analyses of tree rings from more than 150 living trees and 500 fallen trees in the Russian Altai-Sayan Mountains provide a chronicle of climate from 359 B.C.E. to 2011 C.E. The tree rings show that 13 of the 20 coldest summers in the record occurred in the 6th

### BY THE NUMBERS

42

Wind speed, in meters per second, at which trees tend to break, regardless of their diameter, height, or elastic properties (*Physical Review E*). <http://scim.ag/treebreak>

13%

Fraction, on average, of Antarctica's floating ice shelves that could be lost with little impact on the ice sheet upstream. Some areas are even more susceptible to ice loss, such as the Amundsen and Bellingshausen seas (*Nature*).

ILLUSTRATION: TODD S. MARSHALL, [HTTP://WWW.MARSHALLS-ART.COM](http://WWW.MARSHALLS-ART.COM)