

Extinct possibility

HUMAN beings may have had a brush with extinction 70,000 years ago, an extensive new genetic study suggests.

The number of early humans may have shrunk as low as 2000 before numbers began to expand again in the early Stone Age, according to an analysis released this week.

"This study illustrates the extraordinary power of genetics to reveal insights into some of the key events in our species' history."

"Tiny bands of early humans, forced apart by harsh environmental conditions, coming back from the brink to reunite and populate the world. Truly an epic drama, written in our DNA," Spencer Wells, National Geographic Society explorer in residence, said.

Early humans came back from the brink

Wells is director of the Genographic Project, launched in 2005 to study anthropology using genetics. The report was published in the *American Journal of Human Genetics*.

Previous studies using mitochondrial DNA — which is passed down through mothers — have traced modern humans to a single 'mitochondrial Eve', who lived in Africa about 200,000 years ago.

The migrations of humans out of Africa to populate the rest of the world appear to have begun about 60,000 years ago, but little has been known about humans between Eve and that dispersal.

The new study looks at the

mitochondrial DNA of the Khoi and San people in South Africa which appear to have diverged from other people between 90,000 and 150,000 years ago.

The researchers concluded humans separated into small populations prior to the stone age, when they came back together and began to increase in numbers and spread to other areas.

Eastern Africa experienced a series of severe droughts between 135,000 and 90,000 years ago and the researchers said this climatological shift may have contributed to the population changes, dividing into small, isolated groups which developed independently of one another.

Paleontologist Meave Leakey, a Genographic adviser, commented: "Who would have thought that as recently as 70,000 years ago, extremes of climate had reduced our population to such small numbers that we were on the very edge of extinction."

Today more than 6.6 billion people inhabit the globe, according to the US Census Bureau.

The research was led by Doron Behar of Rambam Medical Centre in Haifa, Israel and Saharon Rosset of IBM TJ Watson Research Centre in Yorktown Heights, New York, and Tel Aviv University.



TOUGH TIMES ... the human population could have dropped as low as 2000

Contenders sought for science prize

THE call has gone out for contenders for Australia's top science prize.

The Prime Minister's Prize for Science (\$30,000) is awarded for outstanding achievement in the physical, chemical, biological and technological sciences.

It may be awarded to an individual or jointly to up to four individuals.

The Science Minister's Prize for Life Scientist of the Year (\$50,000) and the Malcolm McIntosh Prize for Physical Scientist of the Year (\$50,000) are awarded to scientists at an early stage of their research careers, whose outstanding achievements are advancing, or have the potential to advance human welfare or society.

The Prime Minister's Prizes (each \$50,000) for Excellence in Science Teaching in Primary and in Secondary Schools recognise two teachers who have made outstanding contributions to science education in Australia.

Australia's Chief Scientist, Dr Jim Peacock, urged anyone familiar with outstanding Australian scientists and science teachers to nominate them for the prestigious awards.

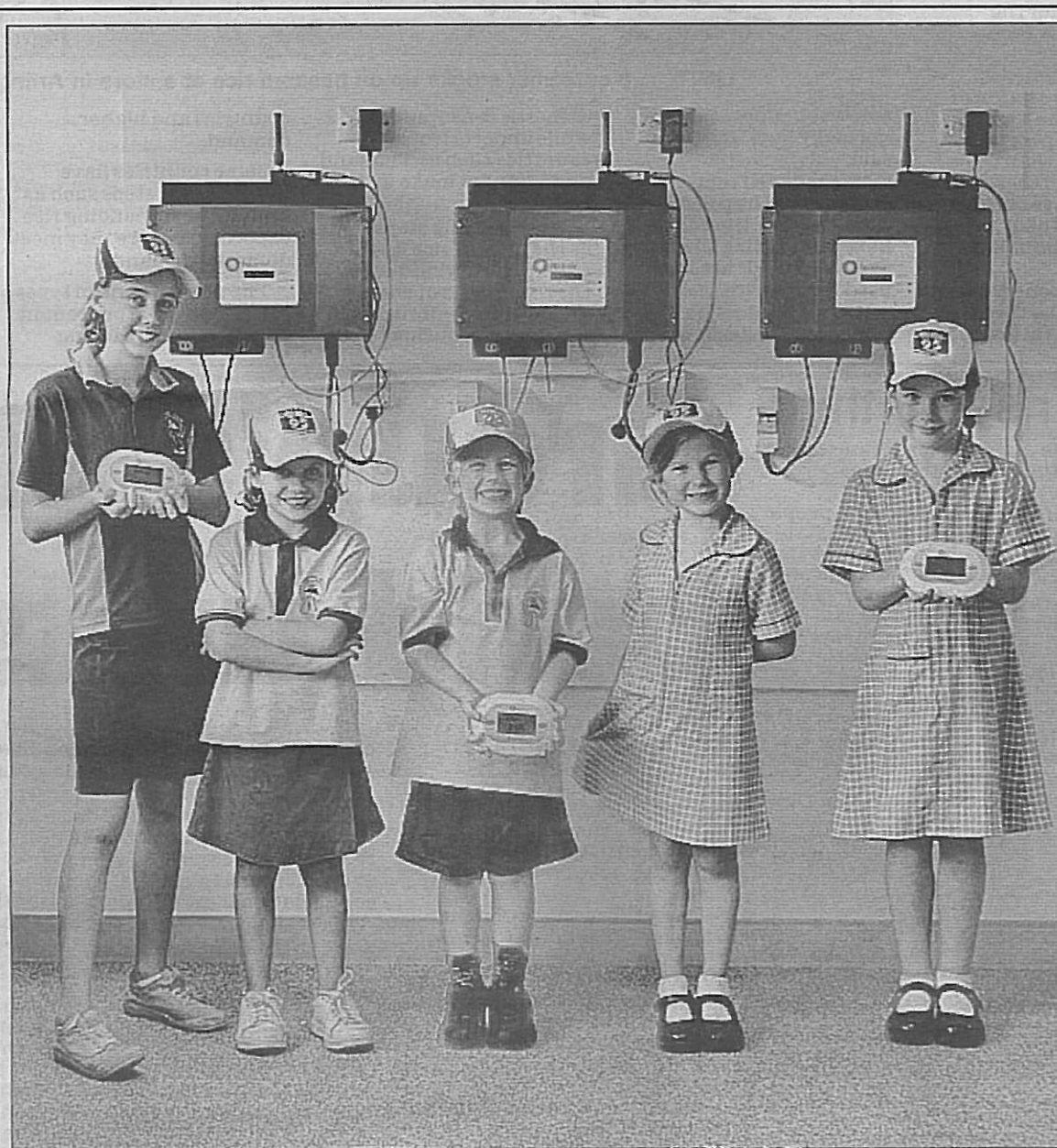
"Australian science is among some of the best in the world," Dr Peacock said.

"It is crucial that we recognise and reward national science excellence, particularly amongst our younger researchers."

"In many cases, we need look no further than their science teachers to learn where they gained their love for science, and these people also strongly deserve public appreciation and thanks."

Nominations close on Friday May 9, at 5pm.

Further information is available at www.dest.gov.au/scienceprize, call the Department of Innovation, Industry, Science and Research on (02) 6240 5066 or email pmprize@innovation.gov.au.



EMPOWERED ... Rhiannon Griffin, Grace Bramble, Lachlan Roberts, Emma Warren and Jessica Roberts learn about solar site data meters

Building a green appreciation in youngsters

A TOWNSVILLE builder has started showing off its greener side to school students.

Hutchinson Builders has developed an education experience to show off its new environmentally friendly modifications, installed last year.

The builder has a solar power station, which supplies about 12 per cent of its commercial building's energy.

The power station has been performing above the company's expectations, delivering up to 13.8 per cent of the building's energy requirements in February.

The building also stores 100,000L of rainwater, and has a white roof which reduces solar heat absorption and the need for airconditioning.

It also uses natural light to maximum effect to reduce lighting energy, and uses an energy-efficient airconditioning system.

The school tours have been dubbed the 'Hutchinsolar' experience.

"We have had numerous tours through the building since it was commissioned," said Hutchinson Builders regional manager Jim Gutteridge.

"On the strength of these we are investing more resources into improving the learning experience for the public."

Sustainability consultant Guy Lane from SEA O2, who advised the company on going green, said Hutchinson Builders recognised the importance of being more than just a builder.

"Hutchinson Builders sees value in promoting green design to the public as well as to others in the building industry," Mr Lane said.

"As such, Hutchinsolar is part of this firm's developing triple bottom line approach to their business."

Fish habitats due for some TLC in dry tropics

ENVIRONMENTAL rehabilitation work will start soon in areas from Crystal Creek to Bowen to protect fish.

Burdekin Dry Tropics Natural Resource Management and Ocean Watch Australia will focus their work on six areas along the coast to improve fish habitats.

The work will include in-stream and vegetation rehabilitation, restoration of passages for fish, and water quality improvement, which is expected to start immediately and

be completed by the end of the year.

A rock ramp will be installed across the Rifa Island sand dam in the lower Burdekin, while a barrier preventing fish from migrating along Stuart Creek will be removed.

Others projects to be funded under the scheme include weed control at Horseshoe Creek near Giru, rubbish removal, weed control and revegetation within the declared Bohle River fish habitat area; weed control and fish passage improvement and revegetation at

Bushland Beach, and at Rollingstone Creek.

Project manager Carla Wegscheidl said the project strived to highlight the importance of land management activities in the catchment, and the flow-on effects to estuarine wetlands and fisheries productivity.

She said talks with local fishermen had identified a lot of areas affecting fish populations.

Commercial fisher and steering

committee member Greg Radley said the program allowed commercial fishermen to work with community groups that they would normally not have contact with.

"It fosters a relationship and allows invaluable work to be carried out on improving fisheries habitats that may otherwise have been neglected," Mr Radley said.

"It is a very worthwhile program opening avenues of communication between industry and the broader community."