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**BBC**

# Giant turtle's demise the fault of humans, study says

The turtle outlasted other megafauna by thousands of years - until humans arrived

Humans helped drive a species of giant turtle to extinction almost 3,000 years ago, according to a study in PNAS.

It is one of the first cases that clearly shows that humans played a role in the demise of the giant, extinct animals known as "megafauna".

An Australian research team discovered turtle leg bones - but not shells or skulls - on an island of Vanuatu.

The bones date to just 200 years after humans' arrival, suggesting they were hunted to extinction for their meat.

However, the turtles lived far longer than other megafauna - which included the famed woolly mammoth; while Australian megafauna is thought to have died out almost 50,000 years ago, it appears that these turtles survived for far longer - until the arrival of a people known as the Lapita.

Debate over what caused the megafauna to die out has raged for 150 years, since Darwin first spotted the remains of giant ground sloths in Chile. Possible causes

have ranged from human influence to climate change in the past, even to a cataclysmic meteor strike.

The research was published in the Proceedings of the National Academy of Sciences of the United States (PNAS).

## 'Enormous pressure'

Most of the bones discovered were leg bones

The research team, led by Professor Matthew Spriggs from the University of New South Wales, discovered a graveyard full of bones on a site on the island of Efate that was known to be home to a Lapita settlement.

The turtles, of a never-before-seen species in the genus *Meiolania*, had a length of two-and-a-half metres and sported fearsome horns on their heads.

But the bones were overwhelmingly from the creatures' legs - their only fleshy and edible part. The team went on to date the bones, finding the last ones occurring in layers of sediment that were laid down about 200 years later than the arrival of the Lapita.

Professor Chris Turney of the University of Exeter in the UK called the paper a "really good piece of work", second only to a similarly damning find in New Zealand confirming humans' role in the extinction of the giant birds known as moa.

"It's a really lovely example - you have this amazing beast that's been around for tens of millions of years surviving as a relic population on this island. Then these people arrived and they basically disappear in a couple of hundred years," he told BBC News.

"When people turn up they put these populations under enormous pressure - they might not be giving the final, killer blow but they're adding another level of stress. It looks like these fantastic turtles are another example."