

Extreme 'housework' cuts the life span of female Komodo Dragons

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This is a female Komodo Dragon guarding her nest in Indonesia. Credit: Tim Jessop

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An international team of researchers has found that female [Komodo Dragons](#) live half as long as males on average, seemingly due to their

physically demanding 'housework' such as building huge nests and guarding eggs for up to six months.

The results provide important information on the endangered lizards' growth rate, lifestyle and population differences, which may help plan [conservation efforts](#).

The Komodo dragon is the world's largest lizard. Their formidable body size enables them to serve as top predators killing water buffalo, deer and [wild boar](#) and they have also been known to kill humans.

A research team which included scientists from the University of Melbourne, Australia, Indonesia and Italy studied 400 individual Komodo Dragons for 10 years in [eastern Indonesia](#), their only [native habitat](#). The team then produced a model of the Dragon's growth rate, with results published in the current issue of international journal [Plos One](#).



This shows Komodo Dragon eggs in a nest in Indonesia. Credit: Tim Jessop

Males live to around 60 years of age, reaching an average 160 metres in length and 65 kg at adulthood. However their female counterparts were estimated to live an average of 32 years and reach only 120 cm in length, and 22kg.

Dr Tim Jessop from the Department of Zoology at the University of Melbourne was a co-author on the study and said that the team were surprised by the significantly shorter lifespan of the female Komodo Dragon.

"The sex-based difference in size appears to be linked to the enormous amounts of energy females invest in producing eggs, building and guarding their nests. The process can take up to six months during which

they essentially fast, losing a lot of weight and body condition, he said.

"[Males and females](#) start off at the same size until they reach [sexual maturity](#) at around seven years of age. From then on females grow slower, shorter and die younger."

The research team was keen to understand the growth rate of the Komodo Dragons as this critical process can indicate how the species prioritises its energy use in lifestyle and reproductive strategies. The results suggest that females have high energy 'costs' for reproduction resulting in their smaller size, whereas to reproduce successfully, males must keep increasing in size.

The results could have dramatic consequences for the endangered species as early female deaths may be exacerbating competition between males over the remaining females, possibly explaining why males are the world's largest lizards.

"These results may seem odd to humans when the [life span](#) between Australian men and women differ by five years. But each species has different strategies to pass on their genes. For example humans invest a lot of energy in few children as raising them is very energy intensive, whereas insects will have hundreds of offspring with no input into their rearing."

Provided by University of Melbourne

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