

Researchers reveal baby-killer birds

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Male (green) and female nestling at 5 weeks old, with lead author Professor Robert Heinsohn (photo: R Heinsohn)

(PhysOrg.com) -- The mysterious behaviour of female Eclectus parrots killing their sons immediately after they hatch has been unravelled by a team of researchers from the Australian National University.

In a paper published online in [Current Biology](#) this month, the team from the Fenner School of Environment and Society and the Research School of Biology describe the infanticide and the conditions surrounding the parrot's choice to kill their young.

“It's interesting in itself because infanticide is weird - why do you have babies and then kill them?” lead author Professor Robert Heinsohn said.

“Humans are the only other species that systematically kill their own

offspring of one sex. But here's a case in *Eclectus* parrots where we can show there is a very clear adaptive reason."

Professor Heinsohn has been studying the *Eclectus roratus* parrot, native to Papua New Guinea and the Cape York area in Northern Queensland, for over ten years. The sex ratio of the birds caught his attention when he observed captive birds producing long stretches of chicks of the same sex in succession, sometimes up to thirty male chicks in a row.

Professor Heinsohn and his research team spent six months at a time in remote rainforests in Cape York studying the parrot in its natural environment.

Eclectus parrots are about the size of a sulphur crested cockatoo and nest in tree trunk hollows 20 - 30 metres from the ground. Unusually for birds, *Eclectus* chicks have distinct gender colour differences from a very young age, allowing the sole carer mother to decide the chick's fate based on its sex within hours of hatching. The research team found that infanticide was only happening in certain types of nest hollows.

"They are not all equal," Professor Heinsohn said. "Some are really good for nesting in, some are poor. The poor ones have a habit of flooding in heavy rain, drowning the chicks or eggs inside.

"There has to be precise circumstances in which the female parrot would commit infanticide.

"It was the adult females who had poor hollows who would often get rid of the male, if they laid a male and a female chick. It was always a younger brother, and in doing that they could speed up the development of the older female chick."

As female *Eclectus* chicks fledge up to seven days earlier than their male

siblings, the adult [females](#) with poor nest hollows stand a better chance of reproductive success concentrating their maternal efforts on female chicks.

“This unusual behaviour affects the balance between the sexes in the adult *Eclectus* population, and should make the over-produced female [chicks](#) less valuable,” Professor Heinsohn said.

“However, provided you don’t do it too often, the benefits of producing at least one surviving chick are such that you can get away with it.”

Provided by Australian National University

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