

Mother knows best: finches choose chicks' gender

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Female parrot finches can match their offspring's gender to prevailing living conditions, producing more sons in lean times, scientists in Australia said Wednesday.

The finding presents the first proof for an evolutionary theory that female animals should adjust the [sex ratio](#) of their offspring to [environmental factors](#) for maximum survival, they wrote.

"This experiment supports the ideas of sex allocation theory," author Sarah Pryke of Sydney's Macquarie University biological sciences department told AFP.

Particularly, it showed that parrot finch mothers determined sex ratios "solely in response to the expected rearing environment."

In all previous studies, differences in the mothers' own physical condition had contributed to determining the sex ratio of their offspring.

But in this test, scientists split one-year-old birds fed on the same diet from birth into two groups and gave them either a high- or low-nutrition diet for 12 weeks before mating, taking pains to maintain their body condition.

The birds in the two groups weighed the same and had the same vital signs and immune responses, but those on the poorer diet, representing a harsher rearing environment, produced significantly more sons, said the

researchers.

In [finches](#), [male offspring](#) grow faster and are healthier and likelier to survive on poor quality diets than their sisters -- and are thus less of a burden on their mothers.

Pryke said the findings reported in the journal [Proceedings of the Royal Society B](#) were likely to apply to other animals, also humans.

"In some ways I suppose it is surprising that females have such control over the sex ratio of their offspring," she said.

"In other ways, it is perhaps not so surprising as it fits with evolutionary theory and the idea that females should utilise strategies that maximise their own fitness in a given environment."

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