

# Loyal alligators display the mating habits of birds

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Alligators display the same loyalty to their mating partners as birds reveals a study published today in *Molecular Ecology*. The ten-year-study by scientists from the Savannah River Ecology Laboratory reveals that up to 70% of females chose to remain with their partner, often for many years.

The team, led by Drs. Travis Glenn, Ruth Elsey, Tracey Tuberville and Stacey Lance, spent a decade examining the [mating](#) system of alligators living in the Louisiana Department of Wildlife and Fisheries'

Rockefeller Wildlife Refuge (RWR) in Louisiana. Once they had successfully re-trapped a female they recognized the potential to examine individual behaviour over multiple mating seasons and determine if mate fidelity or pair bonding occurs.

"Given how incredibly open and dense the [alligator](#) population is at RWR we didn't expect to find fidelity," said Lance. "To actually find that 70% of our re-trapped females showed mate fidelity was really incredible. I don't think any of us expected that the same pair of alligators that bred together in 1997 would still be breeding together in 2005 and may still be producing nests together to this day."

This new discovery gives a new insight into the complex mating system of the alligator. Parental care is typically lacking in most reptiles, but not crocodylians who display parental care through nurturing young and defending the nest. In 2001 multiple paternity was discovered as the alligator mating system, yet it remains unknown as to how this benefits the species

However, while the females at RWR move freely through male territories, leading to high mate encounter rates, this study reveals that many alligators choose to mate with the same partner over many mating seasons. This amounts to the first evidence for partial mate fidelity in any crocodylian species and reveals a similarity in mating patterns between alligators and bird species.

Crocodylians are the sole surviving reptilian archosaurs, a group of ancient reptiles that includes dinosaurs and gave rise to birds. It is this evolutionary relationship to birds which means crocodylians are in a unique phylogenetic position to provide information about the ancestral mating systems of both birds and many dinosaurs.

"In this study, by combining molecular techniques with field studies we

were able to figure something out about a species that we never would have known otherwise," concludes Lance. "Hopefully future studies will also lead to some unexpected and equally fascinating results."

Source: Wiley ([news](#) : [web](#))

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