

## Sex, adultery, betrayal, divorce -- right in your own backyard

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Why do birds divorce? What makes them cheat on their spouses? Why might couples favour one offspring over another? A new book by a York University professor delves into these and other aspects of the secret lives of birds.

In The Bird Detective, Bridget Stutchbury roams forests and jungles studying the sexual antics and social lives of <u>birds</u>, and details the science behind their surprisingly sophisticated and often amusing behavior. The book, published by HarperCollins, hits shelves April 16.

Stutchbury, a professor in the Department of Biology in York's Faculty of Science & Engineering, also explains how understanding birds' behaviour will help to conserve increasingly-threatened species.

Using radio-tracking technology, Stutchbury and York post-doctoral student Bonnie Wolfenden solved a mystery that had puzzled biologists: how were female Acadian flycatchers getting fertilized by neighbouring males who lived hundreds of metres away?

"We had the genetic evidence of their infidelity, but we never did catch a female sneaking away from its nest. It turned out to be the males making clandestine visits to the females," Stutchbury says.

Divorce is a regular part of life for almost all birds; most live with one partner for only a few months or years, depending on the species.

Annual divorce rates range from 99 percent in the Greater Flamingo to



zero in the Wandering Albatross.

"There are a number of theories about why birds go their separate ways," Stutchbury says. "One hypothesis is that birds that are genetically or behaviourally incompatible separate when both can benefit from finding a new partner." Another theory is that birds, like humans, realize they can do better: one pair member initiates divorce for selfish gain, leaving its former partner high and dry.

As in humans, divorce can take its toll on offspring, creating a situation where one partner is left to care for eggs or young. "In the worst-case scenario, birds may abandon the breeding attempt and leave the offspring to die in favour of starting over with a new, better partner," Stutchbury says.

Birds are also known to exhibit favouritism when it comes to their young. They must invest more effort into raising sons, as males are larger and require more food.

"We see birds providing extra food and care to one gender of <u>offspring</u> over another, depending on environmental circumstances," says Stutchbury. In years where food is plentiful, some birds may raise male hatchlings exclusively.

In The Bird Detective, Stutchbury also gives a first-hand account of how she and her team became the first researchers in the world to track migratory songbirds from breeding to wintering grounds. Last winter, she published a paper in the journal Science showing the tiny birds' astonishing speed in migration, finding that they fly three times faster than previously suspected.

Stutchbury emphasizes that these aspects of behaviour aren't mere curiosities: they're crucial puzzle pieces that will help researchers protect



birds from threats like climate change, habitat destruction, and other environmental concerns.

"There's truly a pressing need for behavioural research - otherwise there's no way for us to know how to best protect species."

## Provided by New York University

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