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Biologists explain why birds unfaithful to partners

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MANHATTAN, KAN. - Birds may cheat on their mates to avoid the harmful effects of inbreeding, biologists say.

While human infidelity may be motivated by any number of reasons, scientists say cheating by socially monogamous shore birds seems to provide greater genetic diversity when they are already paired to genetically similar partners.

Researchers from six countries looked at the so-called extra-pair mating tactics of females from three bird species: western sandpipers in Alaska, common sandpipers in southern Sweden and Kentish plovers in Turkey.



From left: western sandpiper, common sandpiper and Kentish plover
Courtesy: Max Planck Society

It seems some female birds actively seek copulations with other males, and some males who mate with other females allow the eggs to be laid in the male's home nest. The research team explored how the phenomenon could be explained by how closely related the male and female in a pair are.

Their results, which appear in this week's issue of the journal *Nature*, suggest the likelihood of mating outside an established pair increases when genetic similarity between pair members is higher than average.

Prof. Brett Sandercock at Kansas State University was a member of the research team that conducted the study.

The researchers found:

- Less than 8 per cent of broods in western sandpiper nests were not the offspring of both parents in the nest
- The rate was 5 per cent in Kentish plover nests
- Among common sandpipers, the rate was 20 per cent

Researchers explore excuses for infidelity

The results add to a growing body of evidence, some of it from humans, that gene compatibility plays a major role in mate choice.

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But the question of how birds are able to recognize a genetically similar partner remains a mystery.

Biologists assume many birds can recognize individuals that grew up in the same nest, but they don't know how birds can recognize half-siblings from other nests, or their cousins.



Brood of western sandpipers hides in the tundra vegetation shortly after hatching


Arie J. van Noordwijk of the Netherlands Institute of Ecology wrote a commentary that accompanies the study.

He said the team's observations fit with research that suggested birds can assess the breeding success of other individuals from the same species and use the information in deciding where to breed the following year.

"It has long been known that birds are clever and flexible in their behaviour," said van Noordwijk. "But we have apparently seriously underestimated them."

Written by CBC News Online [staff](#)

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