

## City birds are smarter than country birds

Life in the city changes cognition, behavior and physiology of birds to their advantage

*Date:* March 21, 2016

*Source:* McGill University

*Summary:* Birds living in urban environments are smarter than birds from rural environments. But, why do city birds have the edge over their country friends? They adapted to their urban environments enabling them to exploit new resources more favorably than their rural counterparts.

### FULL STORY

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A bullfinch in Barbados.

*Credit: Louis Lefebvre*

Birds living in urban environments are smarter than birds from rural environments.

But, why do city birds have the edge over their country friends? They adapted to their urban environments enabling them to exploit new resources more favorably than their rural counterparts, say a team of all-McGill University researchers.

In a first-ever study to find clear cognitive differences in birds from urbanized compared to rural areas, the researchers report key differences in problem-solving abilities such as opening drawers to access food, and temperament (bolder) among city birds versus country.

The team tested the two groups of birds using not only associative learning tasks, but innovative problem-solving tasks. Innovativeness is considered to be useful in the "real life" of animals in the wild, more so than associative learning.

Video: <https://youtu.be/KaE8z95KboE>

"We found that not only were birds from urbanized areas better at innovative problem-solving tasks than bullfinches from rural environments, but that surprisingly urban birds also had a better immunity than rural birds," says Jean-Nicolas Audet, a Ph.D student in the Department of Biology and first author of the study published in the journal *Behavioral Ecology*.

"Since urban birds were better at problem-solving, we expected that there would be a trade-off and that the immunity would be lower, just because we assumed that you can't be good at everything' (in fact, both traits are costly). It seems that in this case, the urban birds have it all."

### **Native birds of Barbados**

The work was conducted at the McGill Bellairs facility in Barbados using bullfinches captured from various parts of the Caribbean island. "The island of Barbados shows a strong range of human settlement, there are some very developed areas but also mostly left untouched, thus providing an excellent environment to study the effects of urbanization," adds Audet.

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### **Story Source:**

The above post is reprinted from materials provided by **McGill University**. *Note: Materials may be edited for content and length.*

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### **Journal Reference:**

1. Jean-Nicolas Audet, Simon Ducatez, Louis Lefebvre. **The town bird and the country bird: problem solving and immunocompetence vary with urbanization.** *Behavioral Ecology*, 2016; 27 (2): 637 DOI: 10.1093/beheco/arv201

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