

Pigeon pecking order found to be driven by weight

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A team of researchers from the University of London and Monash University has found that pigeon pecking order is driven by weight and that a given pecking order can be artificially changed. In their paper

published in the journal *Biology Letters*, the group describes their study of the pecking order of domesticated pigeons and what they learned about them.

The term pecking order has come to be used as a way to describe the hierarchy that exists within a group of animals, including humans. Typically, those at the top of the hierarchy have better access to food or a mate, while those at the bottom must scramble to get by. In this new effort, the researchers looked at pecking order in pigeons at the Royal Veterinary College of the University of London. The pigeons housed there are used for homing purposes—nine are female and eight are male. They are all six years old and differ slightly in size. Over the course of the three-year study, the [birds](#) were given access to food and water and no other birds were included as part of the group. The group was closely watched for a period of time at three points during their annual cycle. Also, at 19 months into the study, the researchers affixed small weights to the smallest of the [pigeons](#).

In studying the birds, the researchers found that they had a clear hierarchy, with the larger birds at the top and the smaller birds at the bottom. Those at the top of the hierarchy were first in line when food and water were given, while those lower down had to settle for less [food](#) by the time their turn came. The researchers found that the larger birds were more aggressive, which is why they got their way when feeding. Things changed dramatically, however, when the researchers added the weights to the smallest birds. With the increase in weight, the birds grew more aggressive and very quickly moved up the hierarchy, eventually arriving at the top. And they remained at the top of the hierarchy until the researchers removed the weights. At their suddenly reduced weight, the birds lost their aggressiveness and slid down to the bottom of the hierarchy once again.

The researchers note that their study shows that aggressive traits in an

animal can be modified simply by changing a physical attribute such as [weight](#). They suggest their findings indicate that people feeding bread crumbs to birds at a park may be making them more aggressive.

More information: Steven J. Portugal et al. Artificial mass loading disrupts stable social order in pigeon dominance hierarchies, *Biology Letters* (2020). [DOI: 10.1098/rsbl.2020.0468](https://doi.org/10.1098/rsbl.2020.0468)

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