

Research sheds new light on feeding behavior of domestic cats

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In the most extensive study of macronutrient regulation yet undertaken on any carnivore, scientists have found that healthy cats regulate the amount of protein, fat and carbohydrate they consume, i.e. their macronutrient intake. Researchers at the WALTHAM® Centre for Pet Nutrition, the fundamental science centre supporting Mars Petcare brands such as WHISKAS® and ROYAL CANIN, have shown that cats consistently demonstrate a macronutrient target very close to that of their natural prey, such as mice and birds.

This research furthers understanding of the factors that influence the [feeding](#) behaviour of [domestic cats](#) and could have important implications for designing feeding regimes for companion animals. In terms of products currently on the market, wet foods are generally higher in [protein](#) and lower in carbohydrate and often very similar to the macronutrient intake selected by cats, while dry foods offer textural variety and may also benefit oral health.

Furthermore, this research adds to the growing appreciation that carnivores, like herbivores and omnivores, regulate macronutrient intake. Establishing that predators such as cats can regulate their intake of multiple nutrients - even after thousands of years of domestication - is a fundamental issue for nutritional ecology. "This is a fascinating discovery and we are intrigued to know more about why cats have the ability to do this," commented lead study author Dr. Adrian Hewson-Hughes.

Over 100 adult domestic cats participated in a series of nine feeding studies over the course of two years. In these feeding studies, the cats were able to select food from three bowls, each containing a different diet that had varying predetermined levels of protein, fat and carbohydrate. The studies found that cats have an intake target that they will consistently select if given the opportunity.

This target was found to be approximately 26g/day for protein, 9g/day for fat and 8g/day for carbohydrate, which is within the National Research Council nutrient guidelines for cats (2006). This equates to approximately 52% of their daily calorie intake from protein, 36% from fat and 12% from carbohydrate. It was also found that [cats](#) have a [carbohydrate](#) ceiling of approximately 300kJ/day and once this level is reached further food intake is suppressed.

WALTHAM® intends to pursue further research in this area and will now focus on the selection of these key nutrients in other cat life-stages including gestation, lactation and growth, as well as in dogs.

More information: The research has been published in the *Journal of Experimental Biology* and is now available for free online: jeb.biologists.org/cgi/content/full/214/6/1039

Provided by WALTHAM Centre for Pet Nutrition

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