

Play and meaty food reduce hunting by cats

Domestic cats hunt wildlife less if owners play with them daily and feed them a meat-rich food, new research shows.

Hunting by cats is a conservation and welfare concern, but methods to reduce this are controversial and often rely on restricting cat behaviour in ways many owners find unacceptable.

The new study – by the University of Exeter – found that introducing a premium commercial food where proteins came from meat reduced the number of prey animals cats brought home by 36%, and also that five to ten minutes of daily play with an owner resulted in a 25% reduction.

"Previous research in this area has focussed on inhibiting cats' ability to hunt, either by keeping them indoors or fitting them with collars, devices and deterrents," said [Professor Robbie McDonald](#), of Exeter's [Environment and Sustainability Institute](#).

"While keeping cats indoors is the only sure-fire way to prevent hunting, some owners are worried about the welfare implications of restricting their cat's outdoor access.

"Our study shows that – using entirely non-invasive, non-restrictive methods – owners can change what the cats themselves want to do.

"By playing with cats and changing their diets, owners can reduce their impact on wildlife without restricting their freedom."

Play in the study involved owners simulating hunting by moving a feather toy on a string and wand so cats could stalk, chase and pounce. Owners also gave cats a toy mouse to play with after each "hunt", mimicking a real kill.

It is not clear what elements of the meaty food led to the reduction in hunting.

"Some cat foods contain protein from plant sources such as soy, and it is possible that despite forming a 'complete diet' these foods leave some cats deficient in one or more micronutrients –prompting them to hunt," said Martina Cecchetti, the PhD student who conducted the experiments.

"However, meat production raises clear climate and environmental issues, so one of our next steps is to find out whether specific micronutrients could be added to cat foods to reduce hunting.

"We also plan to investigate whether different kinds of play have different effects, and whether combining strategies can reduce hunting even further."

The study – based on a 12-week trial of 355 cats in 219 households in south-west England – also examined the effect of existing devices used to limit hunting by cats.

Colourful "Birdsbesafe" collar covers reduced numbers of birds captured and brought home by 42%, but had no effect on hunting of mammals.

Cat bells had no discernible overall effect – although the researchers say the impact on individual cats varied widely, suggesting some cats learn to hunt successfully despite wearing a bell.

Lisa George, from Helston, Cornwall, looks after Minnie, a 3-year old tabby cat who took part in the trial, said: "Minnie loves to hunt. More often than not she will bring her prey home and let it go in the house. We've had birds in the bedroom, rats in the waste paper bin (which took us three days to catch), rabbits in the utility room.

"On changing Minnie's food (previously supermarket own-brand), to Lily's Kitchen, I found she hardly hunted at all. This continued the whole time she was on this food. I can honestly say I couldn't believe the difference as regards her hunting behaviour."

George Bradley, from project sponsors [SongBird Survival](#), said: "This latest study we have funded is excellent news for birds.

"The data show that cat owners (like me) can make a few small and easy steps to really improve the health and happiness of our pets as well as make a really big difference for all our wildlife, especially our beloved songbirds.

"Making these easy-to-implement changes will be a win-win for birds, cats and cat owners."

Dr Sarah Ellis, Head of Cat Advocacy at [iCatCare](#), which is part of the advisory group for this research project, said: "We are really encouraged by the findings of this study.

"While many cat owners are wildlife lovers and find the killing and injuring of wild animals by their cats upsetting, many owners also feel that keeping their cats indoors or restricting their outdoor access would impact negatively on their cats' quality of life.

"At iCatCare, we are particularly excited about the positive effects of play – this is an activity that owners can easily introduce at no or little cost, takes little time and is very cat-friendly.

"The mental and physical stimulation of predatory-like play are likely to help keep a cat in tip top condition and provide an appropriate behavioural outlet for its predatory behaviours."

Dr Adam Grogan, Head of Wildlife at the RSPCA, welcomed the results of the study: "The RSPCA cares for both cats and wild animals and we want to provide advice to cat owners that will benefit both cat and wild animal welfare.

"This project provides us with alternatives for cat owners that are simple and effective and so easy to adopt.

The paper, published in the journal *Current Biology*, is entitled: "Provision of high meat content food and object play reduce predation of wild animals by domestic cats *Felis catus*."

Ends

Once live, the paper will be available at: [https://www.cell.com/current-biology/fulltext/S0960-9822\(20\)31896-0](https://www.cell.com/current-biology/fulltext/S0960-9822(20)31896-0)

Our recommendations following this study:

To reduce predation of wildlife by cats, and to protect your pet from outdoor hazards, like roads, diseases, and fights with other animals, the only sure-fire approach is to keep your cat indoors. Keeping cats indoors overnight reduces these risks. Our research shows, however, that many cat owners value outdoor access for their cats, so this approach won't suit everyone. You can find out more about improving the indoor environment to keep your cats healthy and happy on the [iCatCare](#) and [RSPCA](#) websites.

Because many owners do let their cats outdoors, we researched other methods that reduce predation while making positive contributions to cat health and welfare.

Our study found good evidence that the following methods led to significant reductions in predation of wildlife by cats that were regular hunters. The effects vary between cats. Most of our study cats still killed wild animals – old habits die hard – but overall numbers can be greatly reduced.

If your cat hunts birds *and* mammals:

Try using a complete diet, where the protein source comes from meat. Our trial used Lily's Kitchen, though other similar brands are available. We recommend you seek and follow veterinary advice when changing your cat's food, and follow the manufacturer's guidance on the amount you should feed. Always introduce new foods gradually, over at least a week. A combination of dry and wet foods can be used.

If your cat mostly hunts mammals:

- Try the **dietary change!**
- Introduce **daily play** with your cat. The owners in our trial played with their cats for 5-10 minutes a day. We used a feather toy on a string attached to a "wand", like a short fishing rod, which owners moved in a manner that allowed the cat to chase and pounce on the feather toy. After playing like this for a few minutes, we let the cats capture the toy and then quickly replaced it with a crinkly mouse-type toy for the cat to 'kill', kick and manipulate. Playing with their cat was positively received by our owners as it made them feel closer to their pets.

If your cat mostly hunts birds:

- Try the **dietary change!**
- If your cat is comfortable with wearing a collar, try fitting a **Birdsbesafe collar cover** over an existing, safety (quick-release) cat collar before it goes out. In our trial we used a rainbow-pattern cover. Remove the Birdsbesafe collar cover when your cat is indoors.

About the study

The University of Exeter's "Cats, Cat Owners and Wildlife" project aims to work with cat owners to identify effective, practical means of reducing cat predation on wildlife, without compromising, and potentially enhancing, cat welfare. More details at: <https://wildlifescience.org/catproject2019/>

The project's advisory group comprises bird conservationists and independent experts in feline health and behaviour, and representation from iCatCare and the RSPCA.

In this new study, the meat-rich food given to some cats was produced by Lily's Kitchen, details at: <https://www.lilyskitchen.co.uk/>. Details of Birdsbesafe are at: <https://www.birdsbesafe.com/>

Study sponsor

[SongBird Survival](#), the project sponsor, is the only charity in the UK solely dedicated to halting the alarming decline of songbirds – birds, such as corn bunting, willow tit, tree & house sparrow. It does so by funding independent scientific studies that aim to shed light on the reasons why around 50% of our songbirds have disappeared over the past 50 years. These studies will help determine how land can be managed more sustainably, with a view to restoring a rich, balanced and resilient population of birds similar to that of the 1970's to keep a healthy dawn chorus alive. www.songbird-survival.org.uk/

Available for interview:

1. Professor Robbie McDonald is the project lead of the “Cats, cat owners and wildlife” project and head of the Wildlife Science Group at Exeter University. He is Professor of Natural Environment at the Environment and Sustainability Institute at the University's Penryn Campus in Cornwall.

2. Dr Sarah Ellis is Head of Cat Advocacy at International Cat Care (iCatCare).
<https://icatcare.org/>

3. George Bradley is the Administration Manager of [SongBird Survival](#), an independent, UK-wide bird charity that funds research into the alarming decline in Britain's songbirds.

Media Contacts:

For further information, including interviews with the people above and some cat owners who took part in the study, please contact: Alex Morrison, University of Exeter press office, +44 (0)7920 278762, a.morrison@exeter.ac.uk