



## Bristol Cats Study Newsletter - Spring 2013

The 'Bristol Cats' study is a pioneering study of cat health, welfare and behaviour run by vets, behaviourists and epidemiologists at the University of Bristol. THE AIM IS to improve knowledge of common diseases and behaviour problems of cats, for example (but not exclusively), unwanted elimination, obesity and hyperthyroidism. Findings from the study may be used by veterinary practitioners, cat breeders, owners and the cat community to improve the health and welfare of cats in the future.

### How many cats and owners are currently registered with the study?

- ◆ 1702 cats
- ◆ 1281 owners

We have extended our recruitment period until 31/12/13 due to additional University of Bristol funding that has been provided to help us obtain more faecal samples from young cats for analysis.

### Future study areas:

In addition to developing some of the areas covered on page 3 and 4 of this newsletter, we also plan to study:

- ◆ Factors affecting the risk of road traffic accidents
- ◆ Differences between cats living in 'single-cat' and 'multi-cat' households
- ◆ Factors associated with the risk of feline obesity

### Why do we ask some of the questions in our questionnaires?

Occasionally owners ask us why we include certain questions about the **owners** of our Bristol Cats. The reason varies according to the question, but they are all potential factors that **might** increase or decrease the likelihood of an event (e.g. a specific cat illness, cat behaviour, neutering operation). For example:

**Are feline respiratory problems more common in cats owned by smokers?**

Please remember—if you do not wish to answer a particular question—it is fine for you to leave it blank.



### Contact Us:

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### **Your Bristol Cat could be “Cat of the month”!**

Since October 2012, we have been selecting at random a different cat enrolled on the study each month to be named “cat of the month”. We contact owners of selected cats to ask for a photo and for a few sentences about their cat.

As well as being admired as a new celebrity, each “cat of the month” is also sent a cat toy to play with. Check the website for the latest “cat of the month”...

### **We’re on Facebook and Twitter!**

Some Bristol Cats study participants continue to enjoy sharing photos and stories on these sites. If you would like to see how other ‘Bristol Cats’ are getting on, please add us on facebook:

<http://www.facebook.com/#!/bristolcats.study>

Or follow us and “tweet” on Twitter at:

<http://twitter.com/BristolCats>

**Please note that we are not able to respond to questions on these sites. If you have a question about the study, please contact us via our email address or telephone number listed on page 1.**

### **Prize Draw:**

We realise that completing questionnaires takes time and effort from owners, and hope that owners recognise the valuable part they play in helping us to produce results that can be used to improve feline welfare in the future. As an added incentive, we are running an annual prize draw for owners of cats who completed all of our questionnaires 1- 4 (for 2-4 month, 6 month, 12 month, and 18 month old cats), with the 18 month questionnaire being due in the previous calendar year. The next prize draw will take place in January 2014, for all owners whose 4th questionnaire was due in 2013 and who have completed all 4 questionnaires when requested. Winners are awarded a gift voucher of their choice. **1st prize = £100 gift voucher, 2nd prize = £50 gift voucher, 3rd prize = £30 gift voucher.** Good luck!

**Please add our email address (cat-study@bris.ac.uk) to your email address book, to ensure that our emails are not automatically filtered to your spam box.**

### **Prize draw results:**

The results of our prize draw for owners who completed all of our questionnaires 1- 4 (for 2-4 month, 6 month, 12 month, and 18 month old cats) during 2010 and 2011 are as follows:

1st prize (£100 gift voucher): Lauren (Kumari) BC ID 33

2nd prize (£50 gift voucher): Hannah (Chief) BC ID 102

3rd prize (£30 gift voucher): Carol (Tux) BC ID 74

The results of our prize draw for owners who completed all of our questionnaires 1- 4 (for 2-4 month, 6 month, 12 month, and 18 month old cats), with the 18 month questionnaire being due in 2012 are as follows:

1st prize (£100 gift voucher): Amanda (Puddy) BC ID 261

2nd prize (£50 gift voucher): Jenny (Blackberry)) BC ID 647

3rd prize (£30 gift voucher): Dawn (Poppy) BC ID 335

Olwen (owner of Casper), BC ID 490 was the lucky winner of £50 M&S vouchers, drawn from all completed 12 month questionnaires completed by 30/11/12.

Congratulations to the veterinary practices who won hampers in our prize draw for their efforts to help us recruit kittens to the study.

Results of the Christmas hamper prize draw are as follows:

1st = Highcroft Veterinary Group, Bristol.

2nd = Animal Health Centre, Bristol

3rd = Companion Care Veterinary Surgery, Cheltenham

**Please let a member of the study team know if you no longer have your cat and wish to leave the study. Thank you.**

## Results and Findings:

### First publication!

We are delighted to announce that our first scientific paper based on the Bristol Cats has been accepted for publication in *The Veterinary Record*. This paper was led by **Philippa Welsh** (2011-2012 Pfizer feline fellow at the University of Bristol). Philippa has recently begun a three year senior clinical training post at the University of Bristol and is keen to continue her involvement with the Bristol Cats. The details of the paper are as follows: Welsh, C. P., Gruffydd-Jones, T.J. and Murray, J.K. (in press) "The neuter status of cats at four and six months of age is strongly associated with the owners' intended age of neutering." Further details will be available on our website within the next few weeks. This is an important milestone for the project and could not have been possible without your help—thank you!

### Risk factors for inappropriate elimination in 12 month old UK pet cats.

**Inappropriate elimination** was defined as: soiling that was reported by the owner to occur inside the house, but outside the litter tray (always, usually or occasionally).



**Louise-Trott Grant** received a vacation scholarship from the Wellcome Trust to complete an eight week project, "Risk factors for unwanted behaviours in a UK pet cat cohort" during Summer 2012. Louise's findings are being prepared for publication in a scientific journal and were presented at the 2013 annual conference of the Society for Veterinary Epidemiology and Preventive Medicine.



A copy of the poster is available on the website (paper copies can be supplied upon request). Key findings were as follows:

At 12 months of age:

- ◇ **1 in 7 cats (14%, 72/504) displayed inappropriate elimination.**
- ◇ Inappropriate urination was displayed by 10% (54/519) of cats
- ◇ Inappropriate defecation was displayed by 8% (44/512) of cats
- ◇ Inappropriate urination and defecation was displayed by 4.5% (24/538) of cats.
- ◇ **Cats showing inappropriate elimination at 6 months of age were more likely to show the same behaviour at 12 months of age.**
- ◇ **Inappropriate urination was most likely to be shown by pedigree cats and inappropriate defecation was most likely to be shown by non-pedigree cats.**
- ◇ **Some responses to stressful stimuli (e.g. cats from other households entering the study cat's garden) were predictors for inappropriate urination behaviour.**

**Victoria Crossley** (*Zoetis feline fellow*) has joined us at the University of Bristol and is developing study ideas that may involve data from the Bristol Cats Study. We will keep you updated on Victoria's plans.....

## Faecal sample study

Thank you to everyone who has helped with this part of our study. Following our request last summer for help from owners of more than one cat, some owners were able to collect and send in a faecal sample from their cat(s). We have now incorporated a request for faecal sample collection at the end of the 6 month and 2.5 year questionnaires. A detailed summary of our preliminary findings are available on our website (or by paper copy on request), and the main points are provided below:

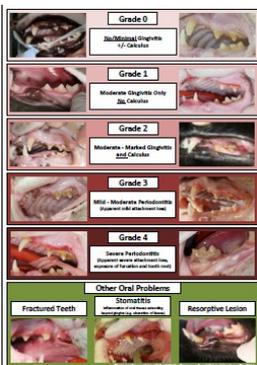
Owners of 'Bristol Cats' have sent in 272 samples and by March 2013 we had analysed the first batch of 209. We have been looking at the intestinal flora of cats and whether certain factors affect the kind of bacteria that they carry in their intestine. We have been concentrating on the probiotic bacteria *Lactobacillus* and *Bifidobacterium*. These are microorganisms that you might have heard of as having a beneficial effect on the health of humans. The bacteria in the intestine of cats are thought to be quite different and we wanted to see if these two types of probiotic bacteria are also present in healthy cats, which would suggest that they may also have a beneficial effect on the health of cats.

Our results suggested that the probiotic profile of cats could be divided into four groups:

- 38% of cats had both of the probiotic bacteria that we tested for
- 16% had only *Bifidobacterium*
- 19% had only *Lactobacillus*, and
- 27% had neither of these bacteria.

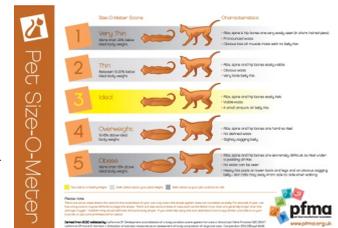
So our early results indicate that these "probiotic" bacteria which you would expect to find in any healthy human are not present in many cats. Although still at an early stage, this study appears to confirm what was suspected, that the intestinal microflora of cats is very different from that of certain other species, for example dogs and humans. Thus what is appropriate or considered as a probiotic in other species may not be the case in cats. We also analysed whether the type of food (dry/wet/cooked/raw), frequency of feeding these different types of food and outdoor access (and therefore hunting opportunities) were associated with intestinal probiotic bacteria, but initial results did not reveal any clear associations. **Samples are still being received and processed** (so if you have an unused pack at home we would still love to receive a sample from your cat). We are also particularly keen to obtain more faecal specimens from cats fed raw meat/fish. We plan to carry out more tests to look for other types of bacteria to help us gain a better understanding of which bacteria may have a beneficial effect on cat health as this important information is not yet known. **If your cat is fed raw/uncooked meat/fish and you have not yet provided us with a sample from your cat, but would be happy to do so, please get in touch and we will send you a sampling pack. Thank you.**

## Body Condition Score Cards and Oral Health Cards



We have had a great response to our mail out of these cards with our Christmas card. Just to remind owners that these should be taken to your vet when your cat is having his/her annual vaccination booster / health check. This will ensure that cats of similar ages can be compared. If you do not intend to take your cat for an annual booster / health check, then please take these cards to your vet if you are attending an appointment at around 1yr 3 months, 2 yrs 3 months, 3 yrs 3 months (and so on). We have mailed out replacement cards to those who have already sent their cards back to us. However, we will now be using an alternative strategy—to send them out closer to the time of your next annual booster / health check. Although this is a little more work

for us, we hope that fewer cards will be lost in the time between receiving them and needing them!



**Thank you for your help—the Bristol Cats owners and cats are helping to make a difference to our knowledge of factors affecting feline welfare.**