

# Bristol Cats Study Newsletter - Spring 2022

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, overgrooming, aggressive behaviour, obesity and diabetes mellitus. 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.

## Study news

With the arrival of Spring we hope that your cats are enjoying the recent sunny weather as much as we are! The new season brings with it exciting research news, as well as an introduction to new members of the team, winners of the annual Bristol Cats prize draw and the launch of a new competition to win a quirky 'cat cave' for our feline friends.

Last month we said goodbye to the study Data Manager, Mike Tier. Mike will continue working at the University, dividing his time between projects in the School of Psychological Sciences and the 'John Oldacre Centre for Sustainability and Welfare in Dairy Production'.



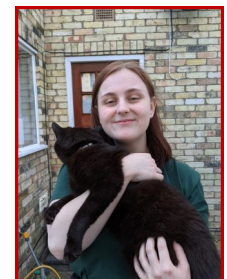
Wombles enjoying the warmer weather  
Photo courtesy of Helena Hale

## Inspiring the next generation of Veterinary Researchers

INSPIRE is a national initiative coordinated by the Academy of Medical Sciences and supported with funding from the Wellcome Trust. The INSPIRE scheme aims to encourage an interest in research amongst Medical, Veterinary and Dental students that will stand them in good stead for their future careers. This February the Bristol Cats Study team welcomed five INSPIRE students for a 'taster' afternoon to gain an insight into our research first-hand.

Lana Henry told us why she wanted to take part in the scheme;

*"I wanted to take part in the INSPIRE research taster day as I hope to contribute to veterinary research in the future. The taster day was a brilliant way to have a casual introduction to how a research project works and the typical duties those contributing to the project take on. I was inspired by how many different research questions surveying and data collection can actually feed into when I spent an afternoon with the Bristol Cats Study team. This experience has confirmed my desire to get into research in the future by giving me more context as to what it takes to carry out research."*





INSPIRE taster day student,  
Lana Henry

## Win a corkscrew cat cave

We are giving away a charcoal corkscrew cat cave to one of our lucky 'Bristol Cats'. There's no need to enter as all study participants who returned a body condition score and oral health card for 2021 and 2022 will be entered into a prize draw! The closing date is 30th December 2022 and the cat cave will be sent to the winning cat in January.

Oral health and body condition cards are sent out to all of our participants with the annual Christmas card. They help us to keep track of your cat's dental health and physical condition, allowing us to relate this to their diet, behaviour, environment and other factors which might influence these measures. If you need a replacement card, please let us know by emailing us at: [cat-study@bristol.ac.uk](mailto:cat-study@bristol.ac.uk)



 <p>As part of the 'Bristol Cats' study we are asking veterinarians of study cats to provide a body condition score at the time of vaccination. This information will help us to identify how certain aspects of a kitten's early life affect body condition scores as they mature.</p> <p><b>Vet:</b> We would be very grateful if you could fill out the following details after examining the cat, using the scoring system outlined on the reverse of this card.</p> <p>Owner: Please send this card back to us using the freepost envelope provided. Thank you.</p> <p><small>Please print your name and address in block letters. Do not write in the spaces provided. Thank you for your contribution to the study.</small></p> <p><i>Richard</i> Dr Richard Tier The Bristol Cats Study Email: <a href="mailto:cat-study@bristol.ac.uk">cat-study@bristol.ac.uk</a></p>	 <p><b>Vet to complete</b></p> <p>Body condition score:</p> <p>Weight:    kgs</p> <p>Date:</p> <p>Clinic stamp:</p> <p><b>Owner to complete</b></p> <p>Bristol Cats ID number (if known):</p> <p>Name of cat:</p> <p>Name of owner:</p>
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## Study updates:

### Out and About...

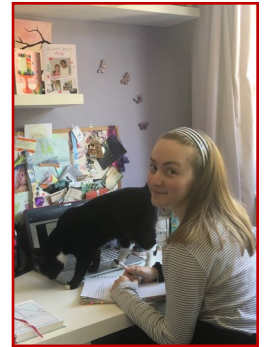
Evelyn Maniaki has entered the pre-doctoral plenary competition at the Clinical Academics in Training annual conference (<https://acmedsci.ac.uk/grants-and-schemes/events/catac>) on Thursday 19 May 2022. This event, organised by the Academy of Medical Sciences, is designed to bring clinical academics together to present their work, network with one another and with senior researchers.



### Social behaviour and relatedness

In January we welcomed Emily Wallis to the research team. Emily is studying Veterinary Nursing with Companion Animal Behaviour at Bristol Vet School and is one of the first cohort on this new four year degree programme.

Emily is conducting two studies as part of her final year dissertation. The first explores how good cat owners are at assessing relationships between cats. She filmed interactions between cats in a number of different multicat households, capturing various aspects of social behaviour. No negative interactions were set up for the purpose of filming, owners were only asked to film their cats' normal interactions. The footage was then edited to form six short sequences of behaviour and 28 cat behaviour experts were asked to assess the videos.



Emily then asked members of the public to rate the cats' emotional state, whether they felt that this changed during the interaction and how well they thought the two cats got along, after viewing the video clips. This was then compared to the assessment provided by the cat behaviourists.

A total of 460 cat owners completed the task!

Emily found a significant difference between the cat owners' and behaviourists' answers to four out of the 30 questions asked. Two of these questions asked the participants to rate the cat's emotional state and two asked them how well they thought the two cats got along. The results mean that the null hypothesis: "There is no difference between owners' and cat behaviourists' recognition of cat behaviour" cannot be rejected.

These findings suggest that owners' interpretations of their cat's behaviours may be relied upon with more confidence for future studies, as well as the second study in this dissertation. Using surveys completed by owners can provide great advantages, such as providing a larger sample size than observation-based studies and allowing the cats to be observed in their home environment, without any external factors such as a behaviourist or a camera in the house to influence how they behave.



Emily's second research project investigates relatedness and social behaviour. This examines whether related cats (littermates) are more likely to show mutual affiliative behaviour at 18 months, 2.5 years and 4 years of age, when compared to non littermate pairs that were obtained as kittens. She is using the information that you have provided in your questionnaires to identify social behaviours such as 'allogrooming' (grooming each other), rubbing heads and flanks against one another and sleeping touching one another, which are all signs that the cats consider each other to be part of the same social group.

Don't miss the Autumn newsletter, when Emily will reveal what she found!

# Study results:

## Do owner-reported changes in their cat's mobility reflect measures of pain and joint disease in their cats?

Many of you will remember the feline activity study run by Evelyn Maniaki as a number of you kindly agreed to allow us to monitor your cat's activity. The study involved investigating whether the reports from owners of cats in the study about slight changes in their cat's mobility were predictive of pain or clinical signs of joint disease.

Fifty-seven cats with and without early owner-reported signs of impaired mobility were allocated to either the case group (30 affected cats) or the control group (27 healthy cats), respectively. Cats in the two groups were matched for factors that might influence the health of their joints, such as their age, breed, sex and body condition.

Participating owners completed pre-visit questionnaires, which included the 'Feline Musculoskeletal Pain Index', a tool validated to detect painful conditions relating to the joints, bones and muscles in cats. Cats were then visited in their own homes where they underwent an orthopaedic examination, along with an assessment of their body condition score and temperament. During the visit, an accelerometer was placed on the cat's collar, which they wore for the next two weeks.



NC STATE  
Veterinary Medicine  
Comparative Pain  
Research Laboratory

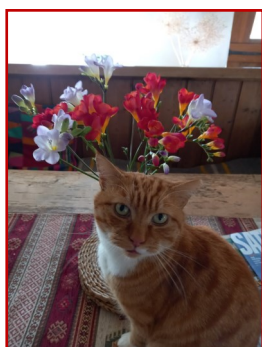
NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

**FELINE MUSCULOSKELETAL PAIN INDEX**

Please take some time to complete the following questions.  
Please mark the circle that best describes your cat's ability to perform the following activities.

1. Walk and/or move easily?	
<input type="radio"/>	<input type="radio"/>
Normal	Not quite normal
<input type="radio"/>	<input type="radio"/>
Somewhat worse than normal	Barely, or with great effort
<input type="radio"/>	<input type="radio"/>
Not at all	Don't know or not applicable

Cats whose owners had reported slight changes in mobility also showed an increased likelihood of pain according to the musculoskeletal pain tool. Scores relating to changes in the joints detected on clinical exam were also higher in case group cats, as was the presence of disease in the joints on both the left and right sides. Both the Feline Musculoskeletal Pain Index and orthopaedic examination were able to differentiate cats with early owner-reported signs of impaired mobility from healthy cats.



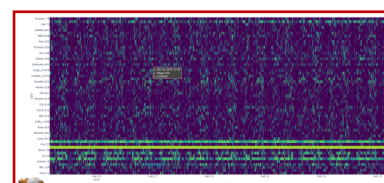
Brain posing with a cat-friendly bouquet of Freesias  
Photo courtesy of Helena Hale

Evelyn's thoughts;

*"These findings represent an important step in improving the detection of the early stages of joint disease in cats. Being able to recognise signs of mobility impairment earlier would allow interventions aimed at slowing down disease progression, thereby improving feline health and welfare".*

## Funding success

Our application to the Jean Golding Institute for Seed corn funding for a collaboration between the Vet School and Computer Science was successful and the project '**Transferring early disease detection classifiers for wearables on companion animals**' commenced in March. The project will employ a newly developed machine learning pipeline (a type of artificial intelligence) for predicting early degenerative joint disease cats, using the accelerometer data collected by Evelyn Maniaki with the help of some of the Bristol Cat Study participants.



<https://jeangoldinginstitute.blogs.bristol.ac.uk/2022/01/31/jgi-seed-corn-funding-call-2022-selected-projects-announced/>

**Stay up to date with us on Twitter (@UniofBristolCats),  
or Facebook (www.facebook.com/bristolcats.study)  
Full details of the research described can be accessed via the study website:  
(www.bristol.ac.uk/vetscience/cats)**



## Moving house / changed your email address / need to contact us?

If you have changed email address, moved house or have a new contact number it is easy to update these online by visiting the website and following the instructions:

<https://smvsfa.onlinesurveys.ac.uk/update>

Alternatively you can get in touch using our contact details below:

Telephone: **0117 394 0850**

Email: **cat-study@bristol.ac.uk**

Freepost: RSHR-AGRJ-UABZ Bristol Cats, Dr Emily Blackwell, University of Bristol, Langford House, BRISTOL BS40 5DU



## Prize draw winners!

We thought you'd like to meet some of our 2022 prize draw lucky winners.



Alfie



Fable



Isis



Kitty



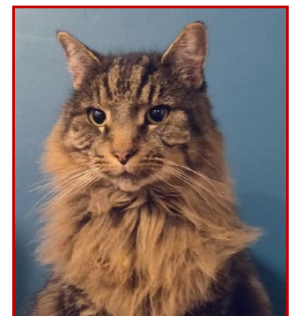
Samson



Sofia



Twinkle



Wodehouse

## Website revamp!

We are currently in the process of updating our website and we'd love to hear your thoughts on how we can improve things. What would you like to see on our new pages?

Please get in touch at: [cat-study@bristol.ac.uk](mailto:cat-study@bristol.ac.uk)

**Thank you for your help — the Bristol Cat owners and cats are helping to make a difference to our knowledge of factors affecting feline welfare. We would also like to thank**

**WALTHAM® Petcare Science Institute and Cats Protection for funding the study.**

