



FELINE ACTIVITY STUDY - A CLOSER LOOK

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Feline degenerative joint disease (DJD) has an insidious onset and can lead to impaired mobility and pain. Prevalence estimates range from 60% in cats of all ages (Slingerland et al., 2011), reaching 91% in geriatric cats (Lascelles et al., 2010). Being able to detect changes early in its development will allow veterinarians and owners to adopt a preventative multimodal approach and possibly delay or even reverse disease progression.

In the [last Feline Update Online](#), we reported on a ground-breaking study at the University of Bristol Vet School, investigating whether cats with early DJD can be identified by measuring subtle changes in their activity.

Feline Activity Study

Recruitment for the [Feline Activity Study](#) finished in November 2019, with a total of 85 cats recruited. Of the 85 participants enrolled, 57 completed the study and were included in the analysis. Figure 1 shows Bobbie, one of the study cats, wearing the accelerometer on her collar.

Out of the 57 included cats, 30 cats had early signs of DJD and 27 cats were disease-free based on an owner-completed questionnaire evaluating their cat's mobility. Data analysis

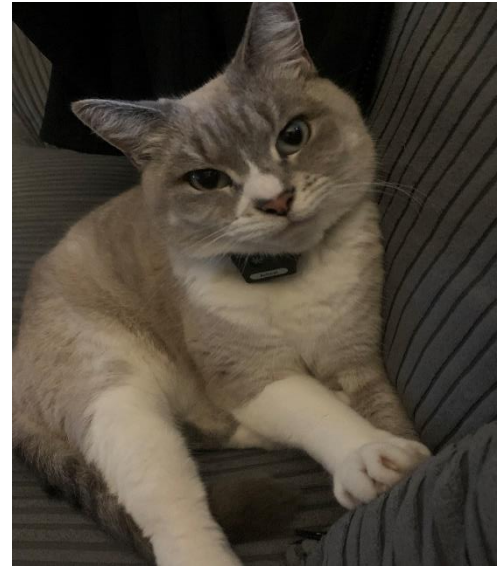


Figure 1: Bobbie posing whilst wearing her activity monitor.

is underway, and we hope to share the results with you soon.

For the first part of the analysis, we will be doing group comparisons using demographic variables, the [Feline Musculoskeletal Pain Index](#) (a pain-scoring tool for assessing the degree to which a cat is suffering pain associated with a chronic musculoskeletal disorder), the [VetMetrica](#) tool (a health-related quality of life instrument) and the scores obtained during orthopaedic examinations by grading pain responses for each appendicular and axial joint. In addition, the activity monitor data will be compared between groups and activity patterns will be identified between

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cats with DJD and disease-free cats, as shown in Figure 2.

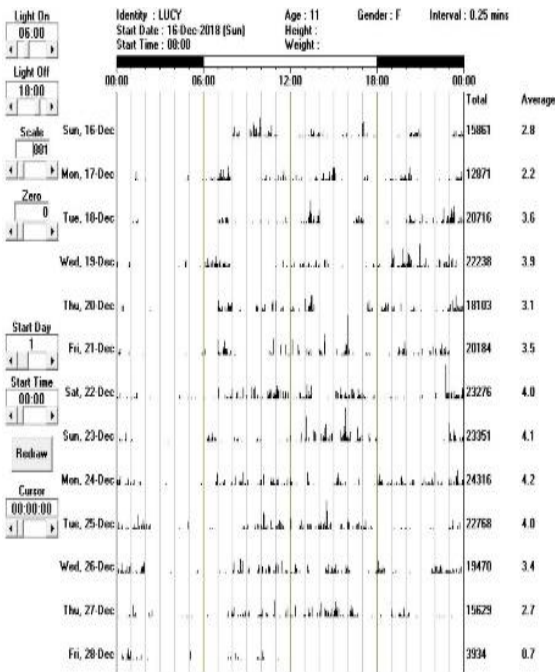


Figure 2. Lucy's activity data from a 12-day period of wearing the collar-mounted activity monitor

For the second part of the analysis, we will be analysing data from the [Bristol Cats study](#) to identify risk factors predisposing cats to DJD.

The Bristol Cats study is a longitudinal study of pet cats where data is being collected from owners via the use of questionnaires. There are currently approximately 1700 cats aged 6-9 years still enrolled in the study from the total of 2203 kittens registered between 2010 – 2013.

References

- Lascelles, B., Henry III, J., Brown, J., Robertson, I., Sumrell, A., Simpson, W., Wheeler, S., Hansen, B., Zamprogno, H., Freire, M. and Pease, A. (2010). Cross-Sectional Study of the Prevalence of Radiographic Degenerative Joint Disease in Domesticated Cats. *Veterinary Surgery*, 39(5), pp.535-544.
- Slingerland, L., Hazewinkel, H., Meij, B., Picavet, P. and Voorhout, G. (2011). Cross-sectional study of the prevalence and clinical features of osteoarthritis in 100 cats. *The Veterinary Journal*, 187(3), pp.304-309.

Evelyn will be submitting an abstract outlining the results of her study at the [ISFM European Feline Congress, 10-14th June 2020](#) in Rhodes, Greece.



A technical bulletin on **feline osteoarthritis** has been produced collaboratively between University of Bristol and Zoetis. You can view and download the bulletin [here](#).



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